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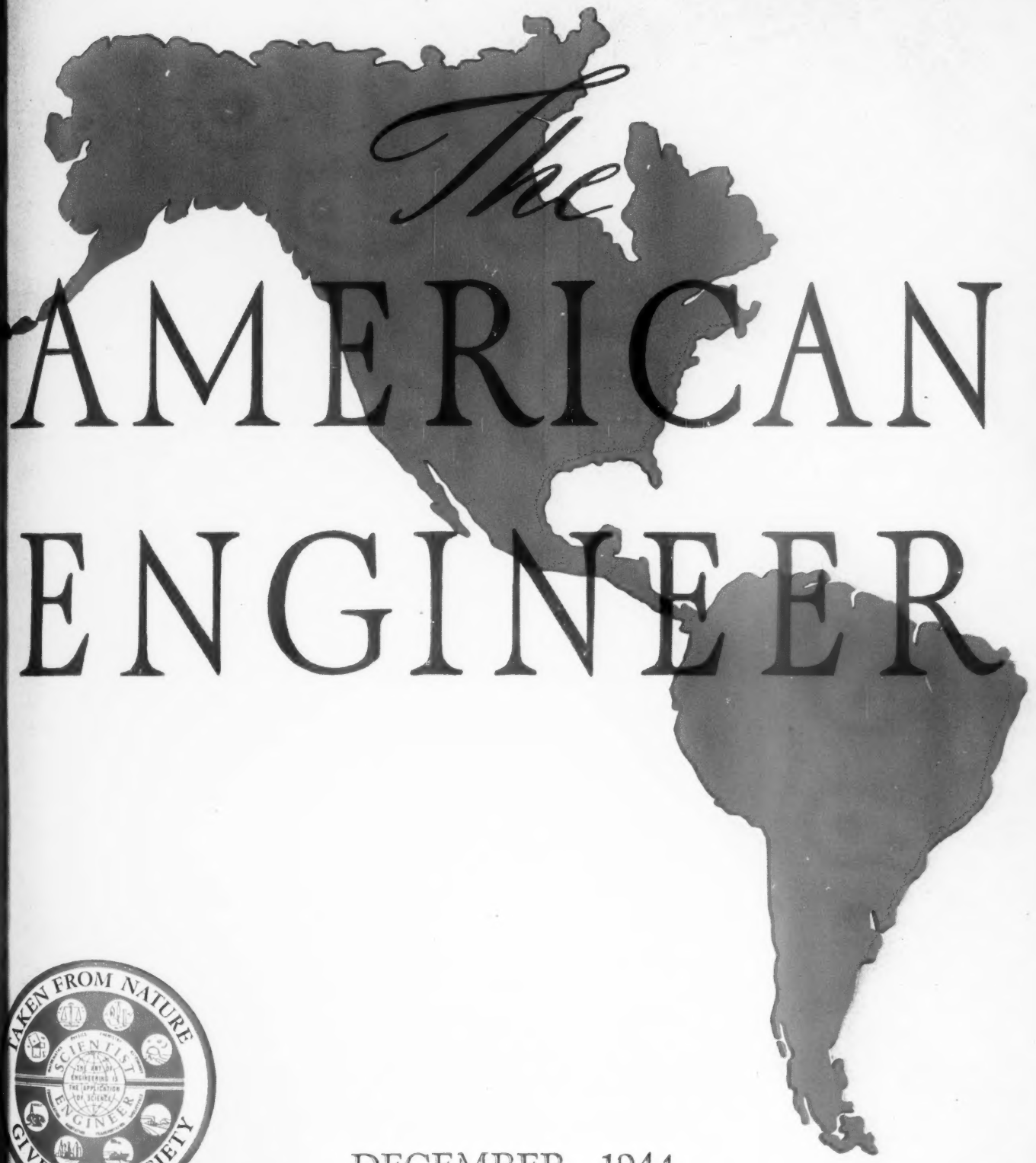

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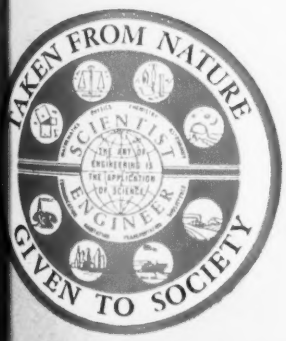

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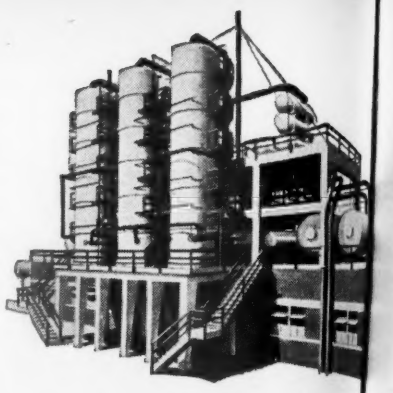

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THE

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Post War Proposals

APATHY OF RECENT MONTHS MAKES

Gen. Fleming's Statement Reassuring

During recent months there has been a pronounced tendency to discount both the need for and the practicability of Post War Construction as a means toward providing employment and stabilizing economic conditions after the conclusion of hostilities. Engineers as a whole regard public apathy in this direction with apprehension. They realize only too well that economic theories are again emerging as the sole means toward the end of general prosperity and welfare.

Public consciousness of events and circumstances is short lived. If this were not true wars would not so frequently plague mankind. A century and a half of orthodox laissez faire economy, which had been instilled into the minds of young and old alike during that period, led to the inevitable end of turmoil and suffering for the great mass of humanity. For a while, a decade ago, it seemed as though the sophistry of attempting to justify miscalled economic laws and the fallacious principles and practices predicated upon the unsound premises of selfish human opinion had finally become apparent to princes and paupers alike. But alas, the memory of man is ephemeral and the seething activity of the moment, due to war, has been misinterpreted. Instead of pointing clearly to the fact that the answer to internal dissension and economic depression is universal employment, regardless of how provided, the momentary plenitude of work is fast being accepted as a precursor of good times if everything is left to laissez faire practices. The fact that the government is spending $100,000,000,000. a year for the prosecution of war, and the resultant employment, is ignored by so many of the present prognosticators. There are those who insist that the same government cannot afford a quarter of that sum spread over a period of several years to insure employment and the maintenance of peace after the war. Yet none of these would have the temerity to suggest that the United States could not continue its war effort for any period that might be required for victory.

Everyone hopes that the need for, and the wherewith to purchase, goods of every conceivable kind will be present after the war ends; but only unwarranted prophecies and unprovable economic theories can be used to support the contention that such hopes are insurances. No government, least of all that of the United States, can assume that all will be well in the economic world if it does nothing other than encourage private industry. It must be prepared to provide employment if private sources cannot or do not. And who is to compel the uncoordinated and individual private enterprises of the country to afford employment sufficient for 12,000,000 persons presently in the armed forces in addition to those now employed indirectly by government financing, who will be seeking new jobs when the war ends. Private industry is not organized, controlled or even directed to function as a unit or in uniform endeavor. Every individual phase of it has its perspectives, aspirations and obligations. No one questions the desire of individuals to promote the country's welfare. But the post war era is bound to be an aftermath of the said war and will undoubtedly have to be handled as such. Government will have to assume responsibility just as it does for the conduct of war. Perhaps a large public works program may prove unnecessary from the viewpoint of essential employment alone, (although this is difficult to conceive) but the preparation of plans for use in case of emergency is a definite and essential safeguard against a nightmare and an equally definite and essential obligation of government so long as the possibility of a nightmare persists. When widespread employment is a fait accompli, government can and should relax and reduce to a minimum all endeavors that can be provided through non-government sources, as well as those which can proceed strictly in proportion to public needs.

It is somewhat reassuring to read in the press of November 17th that Major General Philip B. Fleming, Federal Works Administrator, is confident that up to $5,000,000,000. will be available for construction by January 1, 1945, and that $100,000,000. of that may be used for plans. General Fleming is an able engineer and a realistic administrator who has striven mightily to have this nation prepared against unemployment. He is a man who represents the engineer's point of view in advocating work, as against theories, to promote prosperity. The National Society of Professional Engineers has reason to be proud of its support of General Fleming's various proposals of recent years which have been directed to its attention by Past President Col. Walter Simpson and other persons familiar with these proposals, not the least of which is the placing of all government (civil) engineering works under one control, such as a Department or Secretariat of Public Works.

As food for thought and a challenging statement, one ventures again the belief that engineers possessed of manpower and the materials of nature could do more to make India, the world's greatest example of mass poverty and misery, a productive and prosperous nation within two generations, than would all the economic theories known to mankind over an entire millennium. America has the tools and the resources. It has the highest standards of living ever indulged by man. As citizens it is the duty of engineers to strive to maintain those standards, regardless of implied criticisms suggesting selfishness, because production and distribution depend upon engineering for accomplishmet.

THE FUTURE OF N.C.S.B.E.E.

ITS AIMS AND ITS PROBLEMS

POSSIBILITIES FOR COORDINATION AND UNIFICATION GIVE RISE TO NEED FOR SUPPORT FROM ALL PROFESSIONAL ENGINEERS

BY DR. CARL L. SVENSEN, *President*

DR. CARL SVENSEN
Retiring Pres., N.C.S.B.E.E.

The address of retiring President Svenson invites the attention of all professional engineers. It contains an implied invitation for collaboration and support from engineering organizations. The National Society notes with satisfaction the decision of the Council to appoint membership on a joint committee suggested by N.S.P.E. It also notes that of seventy registration board members present, thirty-nine are members of N.S.P.E.

As the National Council approaches a quarter century of existence it would seem appropriate to think of the future. We know the past, we are in the present, and the future lies ahead. It has been said that "Everything that looks to the future elevates human nature." Certainly the world experiences in war, point to the need of elevating human nature and of looking to the future. People, organizations, and the governments of the world, are all looking to the future with both hope and not a little fear based upon the experiences of the past. In all of this the engineer is an important element. He has a responsibility which he must face. Much of the future is in his hands—yes—and under the direction of his brain. The engineer of the future is destined to play a larger and more important part in the elevation of human nature and so in the progress of the world to peace and security.

What then, are the functions of the National Council in the future? What is its relation to the registered professional engineers of the future? And, a pertinent question we believe, is that of the relation of the registered professional engineers to the National Council. We are going to pose many more questions but we will not attempt to answer them. The future holds the answers. We can properly give thought to them. Some of the things we say have been said before but that is true of most things that can be said.

An organization which has functioned for almost twenty-five years can reasonably be considered permanent and must have served a useful purpose to have attained the membership of all the State Boards. Such growth is truly an evidence of life. The National Council of State Boards of Engineering Examiners was a necessary outgrowth of the passage of registration laws. It is a creation of the State Boards and will function with efficiency and with value to them, according to their own work and according to the effort and cooperation which they give to it. The purposes of the Council are the purposes of the Member Boards. In the future the problems of mutual concern can be expected to increase in number and importance. To meet this necessity for cooperation and service, a future National Council prepared to give immediate and adequate attention to the needs of the Boards and the exchange of information would appear to offer possibilities of vital importance. Will such a National Council of the future operate with a full-time staff at headquarters?

Is it an indication of interest and of the value of the National Council that we have the largest representation of Member Boards this year? In 1943 thirty-three Member Boards were represented by 63 delegates. In 1944 we have at this meeting 37 Member Boards represented by 70 delegates. Is appreciation of the value of the National Council increasing? Is there need for greater service?

What about the opportunity for regional consideration of problems? What about provision for zone meetings in between the annual meetings of the Council? The Boards in a given Zone have many problems in common. Zone meetings would also provide for consideration of all matters of registration and their presentation at the annual meetings. Would Zone meetings provide for a greater, more active and more valuable participation of all Member Boards? I leave the question with you.

What about the future finances of the National Council? Here again the answer is somewhere in the future. We have not yet found "the way to adequate finances" but we can continue to seek "a way" until it is possible to achieve legislative changes to permit Member Boards to provide the necessary financial support and until a knowledge of the needs of the Council and familiarity with the services of the Council become understood by the societies and individuals which compose or represent the profession of engineering. As the purpose and policy of the National Council becomes better known, it appears that support will come in the future. Sincere efforts were made in the past year to secure funds for the National Council. A letter was sent to a number of registered engineers inviting them to become Subscribing Members. Eleven national engineering societies were informed of the needs of the council and two of them became contributors to the finances, the American Institute of Elec-

trical Engineers and the Institute of Ceramic Engineers. Other societies which gave financial support include the American Society of Civil Engineers, the American Society of Mechanical Engineers, the National Society of Professional Engineers, The Connecticut Society of Professional Engineers, and the New York State Society of Professional Engineers. All of the national engineering societies seem to agree that the activities of the National Council are necessary and valuable. Can we expect their financial support?

What about the future of "The Registration Bulletin?" The publication of the Bulletin rates as a valuable and forward looking step. It serves a most useful purpose for the members of the National Council and interest extends beyond the National Council. Its value as a means of conveying information on engineering registration has become established. As to the future we might ask some questions and let you supply the answers. Who is concerned with engineering registration? State Boards of Engineering Examiners? Engineering Educators? Engineering Students? Engineering Graduates? Engineers in Training? Members of the national engineering societies? Registered Professional Engineers? Those who use the services of professional engineers? And others?

Beyond this we might ask why not make the future Registration Bulletin a "Journal of Engineering Registration." Why not include advertisements to pay the expense of publication and to contribute to the finances of the Council? Why not build up a subscription list? There are about 75,000 registered engineers, there are the engineering educators, and there are the many others concerned with engineering registration. Isn't engineering registration of sufficient importance for a monthly journal? The problems of the future are many so why not provide a means for the dissemination of information on engineering registration?

Will there be a publication committee to carry on "The Registration Bulletin" or The Journal of Engineering Registration? What of the future? If 5,000, or 10,000 or 20,000 members of an engineering society can publish a national journal, can 75,000 registered engineers furnish a basis for a "Journal of Engineering Registration"?

What are some of the future relationships of the National Council? Secretary Seabury of the American Society of Civil Engineers has been quoted from an address to our National Council to the effect that: "You, gentlemen, control the future of the profession. I urge that you hold in mind that broader objective: the difference between dexterity and professionalism. Today you are deciding who are to be the engineers of tomorrow." This of course represents one phase of professional engineering of the future. Other phases are concerned with engineering education which involves the relation of the Council to the engineering colleges and in particular to the Society for the Promotion of Engineering Education. That society may well cooperate in the education of engineering students in the history of the registration movement, the meaning of professionalism, and the requirements for registration. The S.P.E.E. is giving increased attention to the cultural and professional aspects of engineering education and has taken notice of the engineering registration laws. With registration necessary for admission to the engineering profession in all but two states, a proper understanding of the common ideals and purposes which concern engineering education, engineering registration and the engineering profession, is an objective for the immediate future. Each one of these groups needs to know and to understand the other. They need to realize that together they form a unity.

Still another phase is the National Society of Professional Engineers composed wholly of registered engineers (but entirely independent of the Registration Boards). This group is concerned with the professional aspects of engineering, and its function appears to be that of correlation and cooperation in engineering education, in engineering registration, in eithical standards, in enforcement of registration laws, and in maintaining the professional status of engineers and engineering. It appears to be an inclusive society of an auxiliary character as it brings all branches of engineering together for the mutual good of professional engineering as a unity, such a unity as the doctors have in the American Medical Association and the lawyers in the American Bar Association. Will there be engineering unity in the future? The National Society of Professional Engineers has asked for and been granted a joint committee with our National Council to seek ways of cooperation and aid. Will this bring about a better understanding of the problems of engineering registration which confront the Member Boards of our Council as they relate to the administration of the registration laws?

It is desirable to have a similar joint committee with the Society for the Promotion of Engineering Education to bring about a mutual understanding of the problems of engineering education and of engineering registration as they relate to each other.

It is true that the Engineers' Council for Professional Development is comprised of representatives of the elements of engineering education, engineering registration and engineering practice, but it has its truly great and valuable work to perform. It cannot be partial to or specialize in the fields of any of its constituent members. It serves a most useful purpose to each of them. And in the phase of professional development the publication of Dr. Wickenden's "The Second Mile" is truly a mile-stone which should be read by every one of the 75,000 registered professional engineers as well as by every engineering student and by every engineering teacher.

Another phase is the accrediting of engineering courses by the Engineering Council for Professional Development which forms the basis for the acceptance of engineering education "satisfactory to the Board." The E.C.P.D. is therefore a most useful agency to both the engineering schools and to the Boards.

Another phase includes the founder societies covering the practice of the profession in its various branches and the development and dissemination of technical knowledge. It is logical to expect that the members of these societies in the future will all be registered professional engineers or engineers in training. Such a future condition

will naturally bring about a closer relationship between these societies and the National Council as the engineering qualifications become a matter of closer correlation.

Is it desirable to have like joint committees with the founder societies to bring about a mutual understanding and agreement on the engineering qualifications, the practice of professional engineering, and other related matters?

Again there comes the question of the desirability of joint-committees to better serve the objectives and purposes of our National Council—to provide the services which will lead to a better and more uniform administration of engineering registration in the future, and to bring together the collective wisdom of engineering education, engineering registration, and engineering practice, all to the end that the society may be better served, protected, and yes, elevated by the profession of engineering.

What are some of the future problems and questions for the National Council to consider? The problems of the past are still problems of the future. The problems of uniformity of registration laws is one for the future and when solved it will solve many of the other problems which are involved in engineering registration. Should this matter of uniformity of laws receive more attention by the National Council to seek attainment in the near future rather than the far future? Should there be provision for the retention of the best legal talent for advice and counsel in connection with changes and amendments to registration laws? Would this hasten the day of uniformity?

What about facilities for furnishing information to Member-Boards on all matters related to or affecting engineering registration anywhere in the country?

Other problems have to do with the evaluation of wartime engineering education and wartime engineering experience. There is the matter of the "Engineer-in-Training" which needs consideration. Other matters for the future might include provision for maintaining a complete file of all rosters, forms, instructions, etc., of all State Boards; provision for a library or file of books, articles, and publications which have to do with engineering registration; provision for a file of material on examinations to be worked up in cooperation with the Committee on Examinations; provision for an adequate and trained staff at headquarters to work with the various committees to insure continuity of studies and research.

There are other problems of the future which are continuing problems from the past and are represented by the Council's committees, and there will be new problems of vital importance in the post-war times of the future.

What about the future of reciprocal registration? This question is becoming increasingly important and many of the difficulties which appear to exist have been collected by our committee on Reciprocal Registration. Some of the difficulties reported come from lack of understanding on the part of registered engineers. Other difficulties are real. Many of them come about from differences in registration laws and cannot be changed without legislative action. Boards must base their actions on the law as it exists in their own state. It would appear that we must wait until the future brings about uniformity in the requirements for registration before we can expect an approach to uniform reciprocal procedure. In the meantime we might ask: Would it be desirable to prepare a simple, clearly stated list of the reciprocal requirements of each sta e in a form that would tell the applicant what he wants to know? Would such a list, verified by each Board, serve as a means to bring desirable changes to the at ention of the Boards and shorten the time to future uniformity? Reciprocal registration looms as a postwar problem. As engineers in the armed services and on war projects return to peace time work, many of them will participate in engineering developments over the country in other than the states of original registration.

What can the future learn from the past? Where has the Na·ional Council been weak and where has it been strong? In this, the report of the Committee on the Effects of Registration deserves thoughtful attention. After all registration is still on trial even though we are encouraged and pleased with the progress which has been made and the growing recognition of the value of engineering registration to the public in safeguarding life, health and property. A strong public sentiment favorable to professional engineering as represented by the registration laws is a necessary prelude to the effective operation of the laws. This will come when the value of the protection which is afforded becomes known.

We might think of the differences in registration laws as a weakness and of the recognition of this weakness as a strong reason for a strong Na·ional Council in the future. The strength or weakness of the future will be influenced by the degree of cooperation attainable and the unity whcih can be attained by Membership in the National Council. This membership is comprised of the Member Boards.

It is true that the primary responsibility of Board Members in the future, as it has been in the past, will be the administration of the law as it is written in the statutes of their own s·ate. Integral with this there are other responsibilities which cannot be separated. Professional Engineers and the public alike see professional engineering in the Members of the State Board. It is from the Board and through the registered engineers that the public of the future will learn the full meaning of engineering as a profession. The mere passing of a law is no guarantee that it will be respected and enforced. The success of any law depends upon need for the provisions of the law and knowledge of the provisions of the law. Familiarity with these factors must pass from the Board to the registered engineers and from them to the public. All of this takes time. The attitude of the Board toward the many factors which must be present if engineering is to be accepted as a profession will be reflected by the registered engineers. The care and fairness exercised by the Board in the consideration of applicants from their own or other states have much to do with the respect accorded to the law and to the value attached to the certificate of registration. From this there will come in the future—an engineering consciousness. The spirit of a profession will come and with it a sense of the ethical obligations which are the respon-

(*continued on page* 26)

SUPREME COURT OPINION

DECLARES ILLINOIS ACT INVALID

STATUTE AS DRAWN INDEFINITE

DELEGATION OF POWER TO BOARD UNWARRANTED

CORRECTIONS BEING PREPARED

Believing that there is considerable misunderstanding concerning the recent decision of the Illinois Supreme Court upholding the decree of the Circuit Court of Sangamon County to the effect that the Illinois Registration Act is unconstitutional, the opinion of the higher court is herewith reproduced. While the court considers the definition inadequate (one member dissenting), it is obvious that the basis of the decision is the "unwarranted and void delegation of legislative power to an Administrative Officer." It is essential that the Act itself clearly indicate what the rights of the individual are. The question of legislative power becoming the province of administrative agencies is once more under consideration. The Decision follows:

(Docket No. 27961 — Agenda 32 — May 1944)

Arthur H. Krebs, Appellee, v. Frank G. Thompson, Director of Registration and Education, et al., Appellants.

MR. JUSTICE SMITH delivered the opinion of the court:

This is a direct appeal from a decree of the circuit court of Sangamon County. The suit was brought by appellee as a taxpayer, under Illinois Revised Statutes 1943, chap. 102, par. 11. Its purpose was to enjoin the Director of Registration and Education, the Director of Finance, the Auditor of Public Accounts and the State Treasurer from expending any funds of the State for the administration of an act entitled, "An Act to regulate the practice of professional engineering," (Ill. Rev. Stat. 1943, chap. 48½). By the complaint the validity of the act was challenged on several grounds. The trial court overruled a motion of appellants to dismiss the suit. Appellants stood by this motion. The court entered a decree granting a permanent injunction, as prayed. The appeal has been perfected to this court by the above-named State officials and an intervening appellant.

It will be necessary to first dispose of appellant's contention that appellee, as a taxpayer, cannot maintain the suit. Appellee bases his right to prosecute the suit on the sole ground of his status as a taxpayer. He does not claim that he will be subject to the provisions of the act, or affected by its provisions, except as a taxpayer.

To appellants' motion to dismiss certain affidavits were attached. Those affidavits tended to show that, in the opinion of the appellants, the act, from a financial standpoint, will be self-sustaining. That is, that the fees paid in by registrants under the act will exceed the cost of administering the act. In one of these affidavits, made by the Superintendent of Registration in the Department of Registration and Education, it was estimated that the number of registrants under the act would be approximately five thousand; that the cost of administering the act would not exceed $11,000. Presumably this estimate refers to the annual cost. No counter-affidavits were filed. Hence the affidavits, in so far as material, must be accepted as true. By section 27 of the act each applicant for registration is required to pay a fee of $20.

It has long been the settled rule in Illinois that the expenditure of public funds by an officer of the State, for the purpose of administering an unconstitutional act, constitutes a misapplication of such funds. It is equally well settled that a taxpayer may maintain an action to enjoin the expenditure of public funds for such purpose. *Reid v. Smith,* 375 *Ill.* 147; *Fergus v. Russel,* 270 *Ill.* 304; *Burke v. Snively,* 208 *Ill,* 328.)

Appellants do not challenge this rule. They deny its application to this case. The basis on which this rule is founded is that the taxpayers are the equitable owners of State funds; that such taxpayers are injured from the misapplication of such funds; that an expenditure of public funds in pursuance of an unconstitutional statute is a misapplication of the funds, which may be restrained at the suit of a taxpayer. (*Fergus v. Russel,* 270 *Ill.* 304; *Jones v. O'Connell,* 266 *Ill.* 443; *Dudick v. Baumann,* 349 *Ill.* 46.).

The challenge of appellants to the right of appellee to maintain this suit as a taxpayer is based upon a novel and ingenious argument. The argument is that the fees paid by applicants for registration under the act will exceed the cost of administering the act and will result in a net profit to the State. From this premise it is argued that a taxpayer cannot be injured because he has no interest in the fees paid under the act; that such fees are not tax money and hence the taxpayer has no interest in the funds. The argument presupposes that in the administration of the act the fees paid by the applicants for registration do not belong to the State until the administration expenses have been deducted and that the ownership of the State attaches only to the net balance, after the payment of operating costs. We do not think this argument is sound. The source from which the funds expended in the administration of the act are derived is not material. All of the funds, regardless of their source, belong to the State. Section 27 of the act (*Ill Rev. Stat.* 1943, *chap.* 48½ *par.* 27) fixes the fees to be paid by applicants for registration. These fees belong to the State. The adminis-

tration of the act is committed to the Department of Registration and Education. By section 2 of an act in relation to the payment of public money of the State Treasury (*Ill. Rev. Stat.* 1943, *chap.* 127, *par.* 171) every department or agency of the State is required to pay to the State Treasurer the gross amount of all money received, not later than the day following its receipt. All moneys so paid into the State Treasury, unless the statute requires such money to be paid into a special fund, or such funds are paid under protest in accordance with section 2a of that act (*Ill. Rev. Stat.* 1943, *chap.* 127, *par.* 172,) immediately become a part of the general revenue funds of the State. In view of this statute it would be the duty of the Director of the Department of Registration and Education to pay into the State Treasury all funds received from applicants for registration. Under this statute, such funds constitute a part of the general revenue funds of the State. (*People ex rel Barrett v. Bradford,* 372 *Ill.* 63; *Chicago Board of Trade v. Cowen,* 252 *Ill.* 554; *Whittemore v. People,* 227 *Ill.* 453.)

The departments of the State Government are not to be paid, in any event, out of the revenues derived therefrom. Such costs can only be paid out of the general funds in the State Treasury, in accordance with appropriations made for that purpose (*Const. art. IV, sec.* 17). All funds expended for the administration of the act belong to the State and constitute a part of the general revenues of the State.

The argument that a taxpayer has no interest in the funds for the reason that the revenues produced by the act will exceed the cost of administering its provisions must necessarily fall of its own weight. The showing of appellants by the affidavits attached to their motion to dismiss is that there will be an estimated administration expense of $11,000. This can be paid only out of the general funds of the State. The expenditure of this or any other amount from the general funds of the State for the purpose of administering an unconstitutional statute is such an injury to every taxpayer that he may bring a suit to enjoin such unlawful expenditure and misapplication of the funds of the State. The fact that an equal or greater amount than the amount expended for the administration of the act will be ultimately produced from fees paid under the act, and paid into the State Treasury has nothing whatever to do with the right of a taxpayer to enjoin the misapplication of public funds for the administration of the act, if it is not a valid statute. Under the settled rule, in this State, every taxpayer is injured by the misapplication of public funds, whether the amount be great or small. Such injury is not prevented by the fact that the State may thereafter receive fees under an unconstitutional statute in excess of the cost of its administration.

Under the averments of the complaint, which was sworn to, and which averments were admitted by the motion to dismiss, appellee clearly had right to maintain the action to prevent what was alleged would constitute a misapplication of State funds.

The cases relied upon by appellants, such as *Daly v. County of Madison,* 378 *Ill.* 357, *and Price v. City of Mattoon,* 364 *Ill.* 512, *involved no expenditure of public funds.* Those cases are wholly inapplicable to the question here involved.

Appellee's attack on the validity of the act is based chiefly upon his contention that the act is so vague and indefinite in its terms that it cannot be determined what activities are included within the act and what activities are excepted from its provisions. Section 1 provides that, "any person practicing or offering to practice professional engineering is required to submit evidence that he is qualified so to practice and to be registered as hereinafter provided." (*Ill. Rev. Stat.* 1943, *chap.* 48½, *par* 1) That section further provides that "it is unlawful for any persion not so registered, to practice or offer to practice professional engineering in this State."

Section 2 is a glossary. In that section, "professional engineering" is defined as follows: " 'Professional engineering' means any professional service such as consultation, investigation, evaluation, planning, design, or supervision of construction, in connection with any public or private utilities, structures, buildings, machines, equipment, processes, works, or projects, wherein the public welfare or the safeguarding of life, health or property is concerned or involved, when such professional service requires the application of engineering principles and data."

Before discussing the language of the act, it seems that a recurrence to a few fundamental principles will not be inappropriate. An act, to be valid, must not be vague, indefinite and uncertain. It must be complete when it leaves the legislature and be sufficiently explicit to advise everyone what his rights are under the act and how he will be affected by its operation. (*Chicagoland Agencies, Inc. v. Palmer,* 364 *Ill.* 13) Statutes which are so incomplete, vague, indefinite and uncertain that men of ordinary intelligence must necessarily guess at their meaning and differ as to their application, have uniformly been declared unconstitutional as denynig due procses. (*Triner Corp. v. McNeil,* 363 *Ill.* 559; *Parks v. Libby-Owens-Ford Glass Co.* 360 *Ill.* 130; *Vallatt v. Radium Dial Co.* 360 *Ill.* 407). It must be regarded as long settled in this State that an act, to be valid, must be complete when it leaves the legislature. If it leaves to a ministerial officer the definition of the thing to which it shall apply, such definition not being commonly known, it is invalid as an unwarranted and void delegation of legislative power to an administrative officer. (*People v. Yonker,* 351 *Ill.* 139: *Mayhew v. Nelson,* 346 *Ill.* 381; *Welton v. Hamilton,* 344 *Ill.* 82; *City of Chicago v. Matthies,* 320 *Ill.* 352; *People ex rel Gamber v. Sholem,* 294 *Ill.* 204; *Kenyon v. Moore,* 287 *Ill.* 233; *People v. Vickroy,* 266 *Ill.* 384; *Sheldon v. Hoyne,* 261 *Ill.* 222; *Noel v. People,* 187 *Ill.* 587.)

It will be noted that the definition contained in section 2 gives little insight into what activities are included in the act. Briefly stated, the term "professional engineering" is there defined to mean any professional service wherein the public welfare or the safeguarding of life, health or property is concerned or involved when such professional

service requires the application of engineering principles and data. When an act defines the terms therein used, those terms must be construed according to the definitions contained in the act. (*Smith v. Murphy,* 384 *Ill.* 34; *Rozran v. Durkin,* 381 *Ill.* 97.)

Here we have a definition which is all-inclusive. It includes generally all professional service which requires the application of engineering principles and data. The words "engineering principles and data" are not defined in the act. They have no fixed and definite meaning. Engineering service and the application of engineering principles and data extend to many different vocations and employment.

It is said in the Encyclopedia Britannica that in its early use the word "engineering" referred specially to the operations of those who constructed engines of war in executing works to serve military purposes. Such military engineers were for many years the only ones to whom the title applied. But about the middle of the eighteenth century there arose a new class of engineers who concerned themselves with works which, though they might be in some cases, as in the making of roads, of the same character as those undertaken by military engineers, were neither exclusively military in purpose nor executed by soldiers. These men, by way of distinction, came to be known as civil engineers. It is also there said that no better definition of their aims and functions can be given than that which is contained in the charter issued in London in 1828 to the Institute of Civil Engineers. In that charter, civil engineering is defined as the "art of directing the great sources of power in nature for the use and convenience of man, as the means of production and of traffic in States, both for external and internal trade, as applied in the construction of roads, bridges, aqueducts, canals, river navigation and docks for internal intercourse and exchange and in the construction of forts, harbors, moles, breakwaters and lighthouses, and in art of navigation by artificial power for the purpose of commerce, and in the construction and adaptation of machinery and in the drainage of cities and towns."

An examination of Webster's New International Dictionary, Second Edition, shows that the terms "engineer" and "engineering" are used in connection with, and applied to, the activities of numberless professions and vocations, as well as to various activities in countless undefined operations. The use and meaning of those words in modern commerce and industry are practically unlimited. The activities which they include and to which they may aptly refer cannot be definitely classified or limited within any general definition.

The definition of professional engineering in section 2 is no definition at all. It is but an attempt to delegate to the Department of Registration and Education the power to determine whether a person who renders any service involving the application of engineering principles and data shall be required to secure a license under the act. This is manifest by the language used in other sections of the act.

Section 3 provides for an examining committee to be of engineering for at least five years.

Section 7 provides the qualifications of applicants for registration under the act. Subsection (b) of section 7 provides that an applicant shall be entitled to receive a certificate of registration if he successfully passes a written, or written and oral, examination, designed to show knowledge and skill approximating that attained through graduation from an approved four year engineering curriculum and has had eight years or more of experience in engineering work of a **"character satisfactory to the Committee" and indicating the applicant is competent to practice professional engineering.**

Section 9 provides that the scope of the examination and the procedure in connection herewith shall be prescribed by the committee with special reference to the applicant's ability to design and supervise professional engineering work so as to insure the safety of life, health and property. **In the discretion of the committee,** an applicant may be permitted to select from groups of questions pertinent to several branches of engineering, the group which, in the opinion of the applicant, most nearly covers his professional engineering experience.

Section 10 provides that the successful applicant shall be given a certificate as a registered "professional engineer" of Illinois. This certificate will authorize him to engage in any activities or work included within any branch of the term "professional engineer," as defined in the act, regardless of whether he has any qualifications or has had any experience in the particular branch of engineering in which he may engage. If the answers of the applicant to the questions selected by him satisfy the committee that he is competent to practice any branch of engineering, for instance that branch of engineering relating to the construction of highways, he is licensed not only in that branch but as a mining engineer, an electrical engineer, an hydraulic engineer, an aeronautic engineer, a petroleum engineer, an automotive engineer, and all of the hundreds of other various kinds of engineers known to the ever expanding and undefined volcabular of modern science and industry.

The only restriction on the Department in issuing the license is that the applicant, **in the opinion of the committee, has satisfactorily met all the requirements of the act.** But nowhere in the act are these requirements of the act defined. Such requirements are left to the opinion and discretion of the committee. There are no standards or requirements in the act to guide or direct the committee in the formation of its opinion as to what the requirements of the act are. There is no more flexible word in our language than the word engineer. It is a matter of common knowledge that many unlicensed persons have been operating in Illinois for years under the pseudonym of "engineers," as a refuge from the penalties of the law. The term includes everything, but defines nothing.

The act itself provides no qualifications or training, nor does it prescribe the character of the questions to be propounded to the applicant, or the subjects to which such questions shall relate. This is left entirely to the "opinion of the committee." The committee is given no guide by the act in the selection of the questions or in the determination

of the qualifications of the applicant. The result is that the appointed by the Directors of the Department. Section 4 provides the qualifications of committee members. Other than the requirement that they be citizens of the United States and residents of this State, the only requirements are that they have been engaged in the practice of engineering for at least twelve years and have been in charge legislature has simply delegated to the Department of Registration and Education the power to require all those to register who, in the opinion of the committee are engaged in rendering any professional service wherein the public welfare or safeguarding of life, health or property is concerned, provided, only, that such service requires the application of engineering principles and data. This is clearly a delegation of legislative power to ministerial officers in violation of the constitution. In the case of People vs. Schaeffer, 310 Ill. 574, this court declared invalid a section of the Medical Practice Act relating to the licensing of osteopaths, which provided that the examination "shall be of a character sufficiently strict to test their qualifications as practitioners."

In Vallat v. Radium Dial Co. 360 *Ill.* 407, *we said*: "In order that a statute may be held valid the duty imposed by it must be prescribed in terms definite enough to serve as a guide to those who have the duty imposed upon them. Such definiteness may be produced by words which have a technical or other special meaning well enough known to permit compliance therewith or words which have an established meaning at common law through decisions; but if the duty is imposed by statute through the use of words which have not yet acquired definiteness or certainty and which are so general and indefinite that they furnish no such guide the statute must be declared to be invalid. When it leaves the legislature a law must be complete in all its terms, and it must be definite and certain enough to enable every person, by reading the law, to know what his rights and obligations are and how the law will operate when put into execution. (*Mayhew v. Nelson,* 346 *Ill.* 381, 387.) *If the statute leaves it to a ministerial officer to define the thing to which the statute is to be applied, and if the definition is not commonly known in the modes already pointed out, the act becomes invalid, because it creates an unwarranted and void delegation of legislative power.* (*People v. Yonker,* 351 *Ill.* 139, 145.)"

The same rule was announced in People v. Yonker, 351 Ill. 139. It was there said: "It is true, as this court has frequently said, the method and manner of enforcing a law must of necessity be left to the reasonable discretion of administrative officers, but an act of the legislature which vests in such officers the discretion to determine what the law is, or to apply it to one and refuse its application to another in like circumstances, is void as an unwarranted delegation of legislative authority."

The questions as to whom the act will apply, the qualifications for a certificate, and the means employed to demonstrate those qualifications are to be found only in the opinion of the committee. No standards are fixed by the act to guide their uncontrolled discretion. The committee may apply one standard to some applicants and another standard to others. The committee may base its opinion that the applicant has satisfactorily met the requirements of the act at one time upon certain standards as to such requirements, and at other times upon different standards entirely. The opinion of the committee as to the requirements of the act would be subject to change in the personnel of the committee.

No one can determine from reading the act the activities to which it is directed. The determination of those activities must await the opinion of ministerial officers to whom it is delegated by the act. No one can determine whether he comes within the act by reading the act itself. No one can determine from the act the necessary requirements to entitle him to an examination or to obtain from the committee its opinion that he has satisfactorily met all the requirements of the act. The provision that he must meet all the requirements of the act is meaningless because there are no requirements set out in the act. Until the committee acts no one may know what those requirements are. This is clearly a delegation of legislative power to ministerial officers in violation of section 2 of article II and section 1 of article IV of the constitution. The law cannot rest in the opinion of ministerial officers.

The act, by the definition of "professional engineering" in section 2, first includes all services requiring the application of engineering principles and data wherein the public welfare or the safeguarding of life, health or property is concerned. Then by section 29 it attempts to exclude from that definition and from the act, among other things, "The practice of any other recognized profession or trade." For the reasons above pointed out, the language of this exclusion is likewise so indefinite that no one can determine who is excluded from the provisions of the act. For the reasons already stated, section 29 is vague, uncertain, incomplete, indefinite and incapable of enforcement, or administration.

The provisions relating to the activities which shall and those which shall not be included in the act are so vague and uncertain as to render the act incomplete when it left the legislature. When sections 2 and 29 are considered together, in the final analysis, the Department is given the uncontrolled and unlimited power to determine those against whom it will enforce the act and those against whom it will not enforce it. The power of legislation is thus unlawfully delegated to the Department and to the committee provided for in section 3 of the act. The act cannot be sustained.

This conclusion, as to the validity of the sections of the act referred to, necessarily renders the entire act invalid. The decree of the circuit court of Sangamon County permanently enjoining the expenditure of funds for the administration of the act was clearly right, and that decree is affirmed.

Decree affirmed.

MR. JUSTICE GUNN, specially concurring:

I concur in the result reached in this case but not in all that is said, especially in relation to the insufficiency of the definition of professional engineering.

Submitted as:

ITEMS OF GENERAL INTEREST

National Council S. B. E. E.

Holds 24th Annual Meeting

Lexington, Ky., Oct. 30th and 31st, 1944

The following is a brief release concerning the annual meeting of the National Council of State Boards of Engineering Examiners which was one of the most interesting and well attended gatherings which the Council has held since its formation:

"The National Council of State Boards of Engineering Examiners held its twenty-fourth Annual Meeting at Lexington, Kentucky, on October 30 and 31, 1944. Notwithstanding transportation difficulties and war conditions, this meeting had the best attendance of any previous meeting of the National Council, there being 90 delegates representing 37 states. Eighty-two per cent of the Member Boards in the United States were represented.

The following officers for the ensuing year were elected: President, Professor H. T. Person, Head of the Civil Engineering Division of the University of Wyoming, Larmie, Wyoming; Vice President, John C. Remington, Jr., Consulting Engineer, Camden, New Jersey; Director of the Central Zone, Professor C. S. Crouse, Lexington, Kentucky; Director of the Zone, the Northeast Zone, J. D. Guillemette, Pawtucket, Rhode Island. The members of the Board of Directors who continue in office are Past President, Carl L. Svensen, Austin, Texas; Director of the Western Zone, H. T. Plumb, Salt Lake City, Utah; and Director of the Southern Zone, Dean L. L. Patterson, State College, Mississippi. The Executive Secretary, T. Keith Legare', Columbia, South Carolina, is now serving his twenty-second term in this office.

The next Annual Meeting of the National Council will be held in St. Louis, Missouri, October 29-30, 1945.

The business sessions of the Council were unusually interesting and a number of splendid committee reports were presented and discussed. Plans for developing the present activities and purposes of the National Council, as soon as possible after the war, and providing for adequate funds and facilities to more effectively carry out these plans were considered.

Colonel L. S. LeTellier, Charleston, South Carolina, acted as toastmaster at the annual dinner, at which time President Carl L. Svensen delivered his annual address.

N. C. S. B. E. E. — N. S. P. E. Committee

The appointment of panels to form the joint National Council of State Boards of Engineering Examiners — National Society of Professional Engineers Committee is an evidence that collaboration in a more definite manner is in the making. The representatives of the Council on the joint committee are: C. S. Crouse, Chairman, Kentucky; Raymond J. Briggs, Idaho; J. D. Guillemette, Rhode Island; A. F. Mitchell, Texas, and W. W. Graf, Ohio; those of the Society are: James F. Fairman, Chairman, past President of the New York State Society of Professional Engineers; L. S. Finch, member of the Indiana Society of Professional Engineers; Dean E. A. Holbrook of Pittsburgh, past President of N.S.P.E.; C. George Krueger, President of the New Jersey Society of Professional Engineers; H. E. McWethy, member of the Minnesota Association of Professional Engineers.

Effective Work

In Preventing Misuse Of Term Engineer

Ohio Sets Another Standard

The following exchanges illustrate what an effective organized profession can do to preserve the significance of professional engineering.

Mr. Lloyd C. Chacey, Executive Secretary
The Ohio Society of Professional Engineers
Dear Engineer Chacey:

For some time the Violations Committee has been working to correct a situation in the Division of Safety and Hygiene of The Industrial Commission of Ohio. I am in receipt of the following letter which I am sure will be of great interest to our members.

THE INDUSTRIAL COMMISSION OF OHIO
Columbus 15, Ohio

October 13, 1944

Mr. J. S. Kennedy, Chairman Violations Committee
The Ohio Society of Professional Engineers
Dear Mr. Kennedy:

With reference to your letter of October 9, 1944, the Commission has instructed Harry L. Sain, Superintendent of the Division of Safety, to see to it that the use of the term "Engineer" by the members of his staff whose duties are of a specific safety character is immediately dropped and the word "Adviser" substituted for it.

There appears to have been some misunderstanding in the department about the Commission's wishes in the matter, but this has now been cleared up, and we hope to the complete satisfaction of all parties concerned.

Yours very truly,
Will T. Blake, Chairman

I want to take this opportunity to express my appreciation and that of the OSPE to Chairman Blake, the members of the Industrial Commission and also to the members of the Engineers Registration Board for their courtesy and cooperation in handling this matter. I hope that you can find space to publish this in the next issue of The Ohio Engineer.

Yours very truly,
J. S. Kennedy, Chairman, O.S.P.E. Violations Committee.

October 21, 1944.

Engineer Lloyd A. Chacey, Executive Secretary
The Ohio Society of Professional Engineers
Dear Engineer Chacey:

On October 6, 1944 I reported to the Board of Trustees relative to an alleged violation by the United States Fidelity and Guarantee Co. and authorization was given to sending a letter to this company. When I reported this matter I advised the Board that I had called this same matter to the attention of the Directors of the NSPE and had urged them to take action through their state societies. How well this has worked is evidenced by the following:

The United States Fidelity and Guarantee Co.
Baltimore 3, *Maryland* October 6, 1944.
Gentlemen:

In the September 9, 1944 issue of The Saturday Evening Post on page 68 there was published an advertisement for your company entitled, "Honesty Engineering." The Engineering Profession has played a vital role in the progress of civilization and it is not surprising that many are now trying to capitalize by using its good reputation to advance their own interests.

The dictionary defines engineering as follows: "The action, work, or profession of an engineer." An engineer is one who by scientific research and design utilizes the materials and forces of nature for the benefit of mankind.

In forty-six of the forty-eight states of this nation laws are now on the statute books requiring the Registraion of Professional Engineers before they can practice their profession.

There is no such thing as "Honesty Engineering." On behalf of some nine thousand Professional Engineers registered in the State of Ohio we wish to vigorously protest against such advertising. When a company such as yours adopts such a term to sell insurance, it is certainly misleading if not actually illegal and all Professional Engineers deeply resent it.

The Executive Committee have instructed me to write this letter to you and the members of The Ohio Society of Professional Engineers await with interest your reply to this protest.

Yours very truly,
J. S. Kennedy, Chairman Violations Committee

UNITED STATES FIDELITY AND GUARANTY COMPANY
BALTIMORE, MARYLAND

October 9, 1944.

Mr. J. S. Kennedy, Chairman, Violations Committee
The Ohio Society of Professional Engineers
Dear Mr. Kennedy:

I am acknowledging your letter of October 6 relative to the use by this company of the word "engineering" in connection with the development of fidelity insurance.

A similar protest was received from the secretary of the Kansas Society some days ago, and I am taking the liberty of enclosing a copy of the acknowledgement sent to Mr. Munger.

Cordially yours,
C. J. Fitzpatrick, Secretary

Mr. Harold H. Munger, Secretary October 3, 1944.
Kansas Society of Professional Engineers
Dear Mr. Munger:

Thanks for your letter of September 29 and its healthy blast. If I were a civil or mechanical engineer I would be tempted to apply even stronger language to the light-fingered people who blithely appropriate the honored title of engineer and use it to fit any pursuit or business.

We have gone a long way in strecthing words from their original meaning. Webster now recognizes an engineer as one who designs or contrives; an efficient manager; one who carries through an enterprise by skillful or artful contrivance—a lively imagination is needed to classify the commercial engineer, the industrial engineer, the administrative engineer with a civil or mechanical engineer.

This acknowledgement, however, is not so much an attempt to answer your protest as to inform you that while our so-called honesty engineering approach to the problem of dishonesty strikes us as constructive, we do not plan to continue that theme in our national advertising, and have an entirely different motif in forthcoming issues of the magazine we use.

We in Baltimore are glad to get your reaction and thank you for taking the trouble to write. One satisfaction about living in America is the freedom to take the other fellow to task and most of us can profit by such criticism.

Cordially yours,
(signed) *C. J. Fitzpatrick,* Secretary

It is my recommendation that this complete matter be published in the next issue of The Ohio Engineer.

Yours very truly,
J. S. Kennedy, Chairman, OSPE Violations Committee

N. S. P. E. Legislative Bulletin

Sample Issue Appears

The first Legislative Bulletin has been issued by the National Society of Professional Engineers as of October 18th. Following are excerpts therefrom:

It is hoped that the issuance of this first Bulletin will mark an important step in the progress of this Society.

It is proposed to issue such bulletins at frequent intervals either weekly or fortnightly, during Congressional Sessions.

The 78th Congress recessed Sept. 21 until noon Nov. 14, which enables us to report on some of the important pieces of legislation pending and passed immediately prior to recess.

The Georgia Society resolution introduced to the board meeting at Lexington on Sept. 15th expressed an interest in the disposal of surplus commodities and to the adoption and administration of a plan whereby schools, universities, and colleges could be made the beneficiaries of such surpluses as might be judged suitable.

This subject was referred to the Legislative Committee for reply.

From an examination of the Conference report by the managers on the part of the House headed by Mr. Manasco on the Bill H.R. 5125 known as the Surplus Property Bill, and which has recently been signed by the President and now is law, it is found that a complete answer is contained in the following context:—

Disposal to Local Governments and Nonprofit Institutions

Sec. 13 (a) The Board shall prescribe regulations for the disposition of surplus property to States and their political subdivisions and instrumentalities, and to tax-supported and non-profit institutions, and shall determine on the basis of need what transfers shall be made. In formulating such regulations the Board shall be guided by the objectives of this Act and shall give effect to the following policies to the extent feasible and in the public interest:

(1) (A) Surplus property that is appropriate for school, classroom, or other educational use may be sold or leased to the States and their political subdivisions and instrumentalities, and tax-supported educational institutions, and to other nonprofit educational institutions which have been held exempt from taxation under section 101 (6) of the Internal Revenue Code.

(B) Surplus medical supplies, equipment, and property suitable for use in the protection of public health, including research, may be sold or leased to the States and their political subdivisions and instrumentalities, and to tax-supported medical institutions, and to hospitals or other similar institutions not operated for profit which have been held exempt from taxation under section 101 (6) of the Internal Revenue Code.

(C) In fixing the sale or lease value of property to be disposed of under subparagraph (A) and subparagraph (B) of this paragraph, the Board shall take into consideration any benefit which has accrued or may accrue to the United States from the use of such property by any such State, political subdivisions, instrumentality, or institution.

(2) Surplus property shall be disposed of so as to afford public and governmental institutions, non-profit or tax-supported educational institutions, charitable and eleemosynary institutions, non-profit or tax-supported hospitals and similar institutions, States, their political subdivisions and instrumentalities, and volunteer fire companies, an opportunity to fulfill, in the public interest, their legitimate needs.

Another point of interest to engineers is found in Section 5 (b), as follows:—

(b) The Board may, within the limits of funds which may be made available, appoint and fix the compensation of such officers and employees, and may make such expenditures for supplies, facilities, and services, as may be necessary to carry out its functions. Without regard to the provisions of the civil-service laws and the Classification Act of 1923, as amended, the Board may appoint such special assistants, and may employ such certified public accountants, qualified cost accountants, industrial engineers, appraisers, and other experts, and fix their compensation, and may contract with such certified public accounting firms and qualified firms of engineers, as may be necessary to carry out its functions.

House headed by Mr. Doughton and on the part of the Conference report by the managers on the part of the Senate by Mr. George, on Bill Senate 2051 (Omnibus Bill) which was signed by the President and is now law, covers the following subjects amending S. 2051:—

War Mobilization and Reconversion Act of 1944
Title I — Office of War Mobilization and Reconversion
Title II — Demobilization and Reconversion Policies
Title III — Retraining and Reemployment
Title IV — Advances to State Unemployment Funds
Title V — Public Works
Title VI — Miscellaneous Provisions
Title XII — Advances to State Unemployment Funds

Fragments from

STATE & SOCIETY ACTIVITIES

CONNECTICUT

Society Active

The membership drive of the Society has, according to the National Director of Connecticut, begun to show results. Quoting Director Shallenberger:

"At a meeting of the Board of Directors of the Connecticut Society on November 11, 1944, twelve new members were admitted as the membership campaign inaugurated in October under the direction of Engineer Frank E. Kleist, of Waterbury, began to bear fruit. The membership committee, composed of Engr. Kleist as chairman and Engrs. Hill, Tuttle, Scott-Smith, Adams, Gotthardt and Nibbs, is to be congratulated on its good start. The campaign will be continued with the hope of doubling the membership before the next annual meeting in March 1945."

DISTRICT OF COLUMBIA

Initiates Membership Drive

The appended letter issued over the signature of Herbert Manuccia, Chairman of the Membership Committee, contains some compelling arguments and appeals:

October 26, 1944

If you have been reading the American Engineer during the past year you must have noticed that most of the State societies have had considerable increases in their membership, some far beyond their expectations. That is, every State society except our own, the District of Columbia Society of Professional Engineers. Our new members admitted last year amount to only eight percent of the total membership.

It is contrary to the nature of any person to belong to an organization that appears to be stagnant. However, in our society, as in many others, most of the members are content to sit back and let the membership committee and a handful of others do all the work. If the organization progresses, these indifferent members ride along on the crest of the benets. If the organization stands still, such members are often the first to criticize the society. In addition, many critics are persons who offer all sorts of excuses to avoid serving on committees, although it is realized that some reasons for refusal to serve are quite valid.

The membership committee of this society is merely the nucleus of a committee consisting of our total membership and the success of our society depends on the concerted effort of each and every member. When you applied for admission to this society, you did so in the belief that the organization represented something that you could not find elsewhere. Surely, you must know one engineer outside of our society who is also interested in the principles which the organization upholds. Why not interest him in your society by presenting these facts to him?

Your membership committee has just launched a drive for new members. Is it asking too much to set a quota of a 100 percent increase, even to ask for a 75 percent increase, because some members will always remain indifferent. Is it asking too much for a 50 percent increase? We surely can do that, especially as the drive will continue until the end of next May.

It is the impression of many that a membership drive will entail the expenditure of a large sum of money. You may rest assured that this drive will be successful and that we will gain our quota at a minimum of expense. When I say minimum I mean a mere three cent postage stamp to mail this letter to each member. The rest is up to you. The success or failure of the drive depends on you. With the potential membership in this area, are you content to have other State societies accomplishing the aims of our organization? Are you going to let your society down and be content to be a member of an organization that seems to be marking time and waiting for other State societies to accomplish things for it?

Enclosed are two application blanks. One is to be used by the registered engineer and the other by the non-registered engineer. It is needless to point out to you the high standards of qualification our society maintains. To apply for admission, an engineer must be registered in some State of the Union. If he does not hold a license he must have its equivalent in education and experience and must be a resident of the District of Columbia. The best way to gauge a prospective applicant is to compare him with yourself. Is he as good an engineer or better than you are? If so, we want him in our society! Go out and get him!

In many social and fraternal organizations it is customary to give prizes during the membership drive. At the end of our drive each and every member who has contributed his efforts toward gaining new members will receive a prize. It will not be a material reward. It will be the best prize of all — the satisfaction of knowing that you have been instrumental in furthering the aims of the District of Columbia Society of Professional Engineers, an organization in whose tenets and principles you believe.

Sincerely yours,
Herbert Manuccia, Chairman
Membership Comittee

GEORGIA

Makes Splendid Progress

From Stephen C. Hale, Chairman of the Public Relations and Publicity Committee of the new Georgia Society comes the following splendid report. The progress of the Society is worth noting. N.S.P.E. is happy in its affiliation.

The Georgia Society of Profesisonal Engineers is approaching the end of its first year and like any other young Society has a lot to learn but likes to "flex its muscles" when a suitable opportunity is presented. It is hoped that the older State Societies will maintain an understanding tolerant feeling when seeing our items that seem new and big and important to us but which may be to them old and small and routine.

The Georgia Society works in close association with the State Board of Registration for Professional Engineers and Surveyors. All members of the Registration Board are also members of the G.S.P.E. and one member of the Board, Al Stanford, is the President of the Georgia Society of Professional Engineers.

The G.S.P.E. is now sponsoring amendments to improve and strengthen the State Registration Act. This appears to be very much in order since the Registration Acts provide a basic part of the Engineering Profession. They define the qualifications necessary for Professional status and provide the only machinery by which citizens can obtain and maintain recognized and legal standing as Professional Engineers and Surveyors.

The Savannah Chapter of the G.S.P.E. is now well established and going strong. The Atlanta Chapter is in the final stages of organization. Several other chapters are in prospect of being organized in the near future.

The first annual Year Book of the Georgia Society is about ready for the printer and will be distributed at the annual meeting in January. In addition to its containing a membership directory and the Constitution and By-Laws of the Georgia So-

ciety, it wil have other features such as Organization and Functions, List of Objectives, and a Map of Georgia subdivided into districts for convenience in planning local chapter boundaries.

The membership Committee deserves much credit for its active work by which the membership has been increased to about 250 during the first year of the Society.

The Public Relations and Publicity Committee has necessarily been active since it is responsible for such items as the G.S.P.E. Bulletin and the Year Book. This committee of necessity had to obtain information about our Society at National and State levels. The members found The American Engineer to be a fertile source of information pertinent to their work. The progress made by the older State Societies which is clearly illustrated in this magazine is somewhat staggering to us who are only getting nicely started in the work.

The Public Relations Committee is committed to sell the public on the accomplishments of the Engineer and the importance of his Profession. We think this can best be done through existing Engineering achievements which now stand in Georgia as testimonials to Engineering, having been accomplished by Engineers working within the Engineering Profession itself.

Such accomplishments are around us everywhere. The other day the writer heard a Professional Engineer, Paul Weir, of the Atlanta Water Works give an illustrated address to a large group of Georgians. Mr. Weir is a member of this Society and I am certain that every citizen in the State of Georgia would have appreciated and enjoyed being present at the meeting. The address related to "resurrection" of a 40 year old water treating plant which had been long in dis-use, but which was needed to supply the increased demand for water brought about by the war.

This project is perhaps typical of how the Professional Engineer is able to get unusual things done when the occasion requires it. This particular project was successfully accomplished only by the development and application of ideas and methods worked out by the use of professional skill and experience.

Such an address would have wide public appeal and it was suggested that arrangements be made to have it repeated, perhaps at a meeting of the Savannah Chapter. No doubt the address could be prepared to emphasize the Professional Engineering aspects of the operation and it could thus be readily publicized in the local press.

There are many Engineering developments in Georgia that are of vital interest to its citizens. Perhaps the members can take the lead in reviewing some of these developments, writing papers on them and better yet, publicizing their merits in a public address and in the newspapers.

To illustrate that there are many such developments in this State, we suggest a few as examples. Earth Moving Machinery, Toccoa; Modern Power Plants, Automatic Pencil, Atlanta; Bomber Plant, Marietta; Rayon Plant, Rome; and Paper Plant, Savannah. Also consider public facilities and developments such as the State Experiment Station at Georgia Tech and the many public works projects completed in Georgia during the last ten years.

Finally it seems to the committee that the presentation of actual Engineering accomplishments rather than mere statements of objectives will more quickly and more surely help in the public recognition of Engineers and the Engineering Profession. As time goes on the G.S.P.E. will, of course, be able to point to greater accomplishments actually and currently sponsored and brought about through the efforts of member Engineers.

ILLINOIS

Prepares New Legislation

The Illinois Engineer commenting on the recent unfavorable decision relevant to the Engineering License Law advises that the Illinois Engineering Council has directed its Legislative Committee to prepare new legislation to be presented to the State Legislature in January 1945.

Engineers-in-Training

The following has been excerpted from the Illinois Engineer:

In order to make it unnecessary for the young sub-professional engineer to identify himself with labor in a collective bargaining group and on the other hand to make it possible for him to identify himself as a future professional engineer, it has been recommended that the Model Law be amended to allow a classification of "Engineer in Training." Ohio and New York have already introduced the classification and numerous other states are considering it as an amendment to existing licensing laws.

At least two things may be accomplished by establishing the "Engineer in Training" grade. First, the young man will have established legal standing before the community and, second, he will have taken the first step toward legal recognition as an engineer among his fellow engineers.

Illinois engineers should consider the above in connection with their own license law.

Plans For Reorganization

President J. H. Morgan spoke on October 16 before the Chicago Chapter on reorganization and plans for the future of the Illinois Society of Engineers. He will speak to the Central Chapter in Decatur on November 16. On November 18 there will be a meeting of the Board of Directors in Chicago to make arrangements for the annual convention in that city to discuss changes in the constitution and to hear a report of the committee on fees and salaries.

Now that the Supreme Court of Illinois has declared unconstitutional the Professional Engineers Act, the job of preparing a new bill for the registration of professional engineers is in the hands of the Illinois Engineering Council, on which 12 Illinois engineering societies are represented. Its Executive Committee met on September 23, 1944 to consider the necessary steps and on September 30 the Legislative Committee prepared a report that was submitted to a special meeting of the Council on October 7. The Council authorized the Legislative Committee to employ Mr. Paul Gordon, senior partner of Brown, Hay and Stevens of Springfield to assist in making the new bill to comply with the decision of the Supreme Court. After study by its members the Legislative Committee met with Mr. Gordon on October 28 and decided on the general form and content of the new bill. The committee is to meet again on November 11 and hopes to have in the near future a tentative bill ready for the consideration by the member societies.

Max Suter

KANSAS

Daniel Rupp Killed

Was Charter Member — K.S.P.E.

The untimely death of Daniel H. Rupp, production engineer of the Water System of Topeka, was a severe loss to his community and to his profession. Struck by a passing troop train, the career of a much loved and able engineer was cut short adjacent to the scene of his labors for the past fourteen years.

Quoting from a press account Daniel Rupp "Born July 23, 1896, at Reading, Pa., came to Topeka from Oklahoma City in 1930 to become production engineer of the city water plant. He was regarded as an expert in his line.

"In the last war Rupp was in the water purification department of the Government water works division at Washington, D. C., and later served in a similar capacity in Ohio.

"Prior to that time he had traveled extensively studying water systems in India, Turkey, Egypt and a number of European countries.

"He held the position of water chemist at Oklahoma City, until he came here as production engineer fourteen years ago."

* * * * *

"An award for excellency in water purification was given to Rupp by the American Water Works Association several years ago.

"He was a member of the Topeka Rotary Club, Topeka Engineers Club, American Legion and the Central Congregational Church."

MICHIGAN

Pioneers Examination Method

From the Michigan State Board of Registration for Professional Engineers, 307 Transportation Building, Detroit, comes the following announcement which indicates a more practical approach to the qualification of candidates than is generally in vogue.

Professional Engineering Examinations

This examination is divided into three parts, given on three successive days of eight hours each. The passing grade for any part is 60% and the passing grade for the entire examination is 75%. A candidate may repeat any parts of the examination failed at a subsequent examination.

First Day

Text books, tables, etc., permitted. This examination shall consist of questions in those fundamental basic subjects which are common to all curricula in a regular four year course in an engineering college. These are the subjects generally given in the first two years and occasionally in the third year. They are as follows: Mathematics, Physics, Chemistry, Engineering Drawing, Mechanics, Strength of Materials, Fluid Mechanics, Direct and Alternating Current, Electric Apparatus and Circuits, Heat Engines, Machine Design, Thermodynamics, Theory of Structures, Surveying and Mapping.

If, in the opinion of the Board, the education, scholastic record and experience of the candidate is sufficiently good, he may be excused from this part of the examination.

Second Day

No books permitted. This part of the examination shall consist of questions of a professional engineering nature which shall be common to all branches of professional engineering and shall include questions on ethics; professional practice; relations between engineer and client, engineer and contractor, and engineer and public; engineering law and specification writing; report writing. There may be included some questions requiring a mathematical solution in which the original data is in a subject unfamiliar to the candidate but is of such a nature that requires only the engineering approach and ability to analyze which should be common property of all professional engineers. All candidates will take the same examination and no one will be excused from this part.

Third Day

No books permitted. Previous to taking any of the examination, the candidate shall indicate the branch or branches of professional engineering in which he has been primarily engaged and this part of the examination shall consist of questions of a purely professional nature in the branches indicated. No candidate will be excused from this part of the examination.

MINNESOTA

Contributes News Items

The recent News Letter of the Minnesota Association of Professional Engineers furnishes the following — published verbatim:

Are You Telling the World?

We are anxious to have a report from our various societies concerning their efforts toward obtaining local newspaper publicity. Some time ago we forwarded suggestions we felt would be helpful to the societies in having their current activities accurately reported in their local press. A number of societies have acted on these suggestions and the results have been gratifying. They have found that when they notify their local newspapers of the meetings the editor has shown interest. He has printed an announcement of the meeting, and in many cases followed through with a report on the meeting and used pictures of those participating. We urge every society to become publicity-conscious and tell the community what it is doing. The editor will cooperate, even if he is a busy man these days. If you need help from the State Office, do not hesitate to let us know.

Speakers Bureau Open For Business

Our new Speakers Bureau has made its debut — and a successful one. Dean S. C. Lind of the Institute of Technology gave an interesting talk on present-day engineering research before some 300 members of the Midway Club in St. Paul Oct. 4th. Walter Wheeler, Speakers Bureau chairman, has lined up a number of good speakers with timely subjects and we expect other luncheon and civic clubs will avail themselves of our talent this Winter.

November Council Meeting

Our next Council meeting is scheduled for November 18 in Hotel Nicollet. One of the principal topics of discussion will be the legislative program. With a summer's preliminary work behind us, we should be in a good position to evaluate exactly what we have accomplished and what remains to be done before the State Legislature convenes. We hope to determine the correct sponsorship and handling of the Registration Bill. District societies should instruct their councilors concerning their problems so that proper discussion may be part of the agenda.

Welcome To New Members

We are still gaining new members and are gratified by this evidence of public interest. We extend a welcome to the following new members: W. E. King, Consulting Engineer, 1509 Pioneer Building, St. Paul; Earl E. Eckert, Design Engineer, George A. Hormel and Co., Austin. The name of C. K. Erikstrup, Pilot Knob Road, St. Paul, should have been included in the list of new members in the last News Letter.

We "Make" The American Engineer

We are pleased to report that Editor Sheridan of THE AMERICAN ENGINEER intends to publish the recent report on interprofessional relationships by Earl Ewald of District 5. This analytical report is well worth your attention, so watch for it!

MISSOURI

Membership Drive

From the Missouri Engineer one learns that:

Two Thousand Active Members is the goal set by the Membership Committee.

Chairman Butler in Message Expresses Confidence of Reaching this Total Before End of Next Year.

With the Slogan "Every Member Get Two Members" the new drive is swinging into full stride. An intermediate goal of 1500 active members by July, 1945, has been set as a stepping stone to the goal of 2000 active members to be reached by December, 1945.

To Each MSPE Member—By joining MSPE and by your maintaining your membership in good standing you have enabled the Society to carry on during these troubled times. This constructive action on your part is highly apreciated. However, the MSPE, to adequately serve the coming needs of the engineering profession in Missouri, should double its membership within the near future and we know that we can depend on your active aid in our drive toward this goal.

To Each Chapter Member—Your Chapter can extend its effectiveness if you will "put your shoulder to the wheel." You have a Chapter Membership Committee whose success in building up MSPE in your area is dependent quite largely on your work and cooperation. Be a "self-started" and encourage your Membership Committee and your officers by active membership solicitation and by active participation in all Chapter affairs.

To Each Member in the St. Louis Area—Under the capable leadership of Henry S. Miller you have a newly formed membership committee of 35 leaders and active workers. There are more than 1000 well qualified engineering prospects in your vicinity and without doubt, each of you knows personally and intimately as many as a dozen of these prospects. In the St. Louis area alone through the efforts of each of you we can reach our announced goals of 1500 members by July, 1945, and 2000 members by December, 1945. MSPE needs these prospects as new members to reach its full effectiveness and we all need this enlarged MSPE to adequately promote and protect our pro-

fession. From past performance, I know that you will support our current membership drive.

We Did It Before and We Can Do It Again — Nothing succeeds like success. And "success" is the key word of our membership growth heretofore. Organized in January, 1937, with 11 members, MSPE held its First Annual Convention and adopted its permanent constitution in July, 1937, with 250 charter members. By July, 1938, we had 500 members. We then announced a goal of "1000 members by Christmas of 1938." We missed that goal but we did secure our 1000 members by St. Patrick's Day — March 17, 1939. And we passed the 1100 mark by May, 1939. With the organizing and strengthening of our eight regional chapters, which took place from 1938 to 1940, we had a stabilizing factor in helping maintain our Society membership at or near the 1200 mark. Members in the Armed Forces have been retained in good standing without payment of dues. However, the dispersion of many Missouri Engineers to new locations in war employment has resulted in lost contacts so that at present we have about 1000 members in good standing.

Steady, efficient leadership during these troubled times, coupled with the unswerving loyalty of our members, has enabled us to weather the storm. With our remarkable record of rapid early growth and the steady maintenance of our membership during perilous times our announced goals of 1500 members by July, 1945, and 2000 members by December, 1945, are definitely conservative and are readily attainable. This is not set up as an overnight affair. We have 9 months for the attainment of 1500 members and 14 months for our total of 2000 members. We should start soliciting promptly but we have plenty of time to sell MSPE to Missouri Engineres if we organize well and keep everlastingly on the job.

New Chapter A Possibility

The establishment of a chapter in the northeast corner of the state is seen as a possibility by Dean Wilson, Division Engineer of the Highway Department. Considerable interest has been expressed in the formation of a chapter in Marion County, according to Wilson, and engineers in this area are urged to contact him concerning charter membership in the chapter.

The Hannibal district is one of two areas in the state in which a chapter has not been informed. With the organization of a chapter there, the Missouri Society would have nine chapters and cover the state excepting that section about St. Louis.

Present plans for the chapter propose the inclusion of Marion County only due to limitations in travel. Other counties would be added at the request of engineers residing in them who would like to affiliate themselves with the Marion group.

Chapter Notes

The Missouri Engineer contains promising accounts of the following Chapters — Southwest — Southeast, Western, Ozark and Jefferson City.

NEW JERSEY

Legal Assistance For Engineers

The latest issue of the New Jersey Engineer contains information to the effect that Society aid is now available to members of the New Jersey Society in all matters of economic dispute. The following is excerpted from the Engineer:

Legal Aid

Of far reaching importance is the action taken at the semi-annual meeting in confirming the proposal to assist society members who are involved in collective bargaining disputes. That legal aid is to be furnished without cost to an individual member is but significant evidence that the New Jersey Society of Professional Engineers recognizes its responsibility to its members.

The prime requisite for membership is a license to practice that has been issued by the State of New Jersey. From that moment on the Society is prepared to represent the professional engineer and land survyor in a professional manner.

It is worth repeating that this action is not a repudiation of the principle of collective bargaining which have established themselves in the economy of the nation and the state. A truly professional body is rightfully entitled to "exemptions."

Raritan Valley Organizes

A Charter has been granted to the Raritan Valley Chapter which becomes the eighth member of the New Jersey Society. The president is Engineer Chauncey P. Clapp.

Chapter Notes

The New Jersey Engineer contains reports from the Passaic, Raritan Valley, Essex County, Mercer County, Hudson County, Monmouth-Ocean and South Jersey Chapters.

Secretary Assessment Quotas

Following are the amounts assigned and those accepted by ecah of the New Jersey Chapters in the drive to raise $10,000. for secretarial services:

	Members	Quot.	Chapters Voluntary Raised Quotas	Collected and Pledged To Date
Essex	231	$3300.	$3600.	$950.
Hdqt.	24	400.	400.	100.
Hudson	155	2200.	2400.	2075.
Mercer	34	400.	700.	450.
Monmouth-Ocean	38	550.	700.	25.
Passaic	59	850.	1000.	150.
Raritan Valley	40	400.	400.	150.
South Jersey	101	1500.	1800.	900.
	634	$10,000.	$11,000.	$4,800.

Annual Convention

With the first semi-annual meeting a matter of history, the attention of the Board of Trustees is being directed to the formulation of a program for the Twenty-first Annual Meeting and Convention.

This event will take place in Trenton on Saturday, January 27, 1945 with detailed arrangements assigned as the responsibility of Mercer County Chapter. This well organized local unit won the applause for the excellent handling of the September meeting at the Trenton Country Club. Such affairs have demonstrated that active participation by a local unit is an excellent means for consolidating efforts, enhancing the spirit of the group and assuring its growth.

The great increase in Society activities promise a full program of interest. All chapters are urged to prepare now to attend in strength.

NEW YORK

Elmira Host to Society

The Fall meeting of the officers, directors and delegates of the State Society and its Chapters took place in Elmira on Friday, October 27th and Saturday, October 28th at the Hotel Mark Twain.

More than 100 delegates representing Chapters throughout the state were in attendance at the meeting on Saturday morning and at the luncheon of the same date.

Of particular interest were the reports and discussions on legislation, membership, fees and salaries, publication of State and Chapter bulletins and the establishment of an annual award for distinguished service in behalf of the professional movement.

The delegates voted to expand the Special Committee on Fees and Salaries, to appoint a Special Committee to look into and discuss with the Board of Examiners the question of licensing examinations, their form, their scope and admission thereto, and to secure an opinion of the Board of Trustees on the method of an annual award.

Resolutions

Nine resolutions were presented. The following is a digest of those adopted:

(*a*) *Presented by New York County Chapter*

That the National Society be requested to act as spokesman for all Licensed Professional Engineers in all States, and that the attention of Congress and Federal authorities be directed to regulations which do not accord professional status to Engineers similar to recognition accorded to those Engineers by individual States; and to promote Congressional and Federal recognition to Engineers on a parity with those holding licenses to practice law and medicine.

(*b*) *Presented by Kings County Chapter* (*b*) *and* (*c*)

That all past and future Presidents of the State Society be presented with a Scroll.

(*c*) That the State Society again record its favorable attitude to Old Age Security to cover self-employed persons.

(*d*) *Presented by Queens County Chapter*

This recolution indicates that the National Society appears to have adopted a policy which makes mandatory the employment of private practitioners for the design and supervision of Federal Public Works.

The previous action and policy of the New York State Society and the resolution as adopted follows:

"In matters involving conflict between the economic interests of engineers in private practice and engineers in public service, but where the practice of professional engineering as such is not affected; the New York State Society will assume a neutral position, and will take no stand upon legislation affecting the interests of either classification against the other. Members of the Society may of course, express individual opinions, but such opinions shall not be interpreted as being the opinions of the Society."

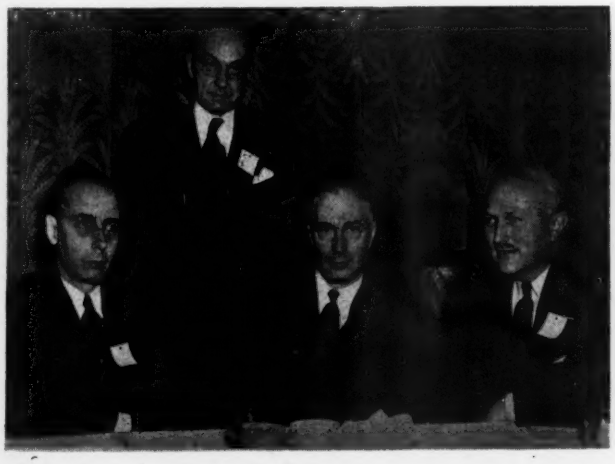
THEREFORE BE IT HEREBY RESOLVED, that it is the considered opinion of the New York State Society that the proposed action of the National Society will bring about dissension between members in civil service and members in private practice affecting adversely the bests interests of the National Society and its member State Societies, and of the profession generally.

BE IT FURTHER RESOLVED, that the national directors from the New York State Society be instructed to present this viewpoint of the New York State Society, at the next meeting of the National Society and to request the National Society to reconsider its action taken in this matter.

LUNCHEON MEETING

N. Y. State Society Prof. Engineers

Elmira — October 28, 1944



Seated — left to right **— Emory Strachen, Mayor City of Elmira; H. E. Babcock, *Chairman, Board of Trustees,* Cornell University; A. G. Sheppard, *President Steuben Area Chapter* N. Y. S. Society of Professional Engineers.**

Standing **— Mr. Post —** ***State President***

(*e*) *Presented by Bronx County Chapter*

"That the State Society condemn the practice of Consulting Engineers and Architects, seeking Surveyors or other engineering services by the bid method."

The above digest of Resolutions was furnished by the Queens Chapter.

The luncheon meeting was addressed by Dr. H. E. Babcock, Chairman of the Board of Trustees of Cornell University, whose topic was "A Post War Plan That Works," the same being a development of the Federal Land Grant Act of 1862 whereby Agricultural and Mechanical Arts colleges were given an impetus that has paid dividends. An address of welcome by the Hon. Emory Strachan, Mayor of Elmira, preceded the talk by Mr. Babcock. The chairman who presented the speakers was Engr. A. G. Sheppard, President of the Steuben Area Chapter. P.S. Herman Eilers was present with evidences of esteem for those in attendance.

Registration Board News

Courtesy D. B. Steinman

The present personnel of the N. Y. State Board of Examiners for Professional Engineers consists of Erich Hausmann, chairman, D. B. Steinman, vice chairman, Roy G. Finch, secretary, Norman R. Gibson, and Irving K. Peck. Mr. Peck is a well known Chemical and Mining Engineer, with office in Binghamton; he has recently been appointed to the Board to fill the vacancy caused by the death of Virgil Palmer.

Registered Engineers in N. Y. State

The number legally registered in New York State and in good standing as of June 30, 1944, is as follows:

Engineers	13,610
Land Surveyors (not licensed as Engrs.)	755
Total	14,365

This total of New York registrants includes 1799 engineers residing in other states.

P. E. Examinations in N. Y. State

Of 132 candidates who took the June 1944 examination for P. E. in N. Y. State, 71 passed, 35 were conditioned in one subjejct, and 26 failed. The percentage passing was 54%. At the same time, 62 candidates took the Preliminary Examinations for Engineers-in-Training. Of these, 38 passed and 24 failed. The percentage passing was 61%.

In Part I—(Structural Planning and Design)—94% of the P. E. candidates passed, and only 76% of the younger graduates passed. In Part II—(Basic Engineering Sciences)—the relative success of the older and younger candidates was reversed, with 63% and 70% passing, respectively. In Part III—(Professional Engineering)—taken only by the older men, 62% passed.

From the start in June 1943 to date, 109 young graduates have passed the Preliminary Examinations and thereby secured their certification as Engineers-in-Training in N. Y. State.

James S. Bixby, District Engineer of the State Dept. of Public Works at Poughkeepsie, has circularized members of the State Board and officers of the State Society, declaring that "the qualifying examinations for professional engineer in this state have become so severe that they are ridiculous." The complaint apparently arises from men, mostly not technical graduates, who are qualified for promotion by long experience in the State service but who find it difficult or impossible to qualify for P. E. license. Adjustments in promotion requirements rather than lowering the standards for P. E. license may be the answer.

Engineers-in-Training

The qualifying of young graduates as Engineers-in-Training through preliminary examinations, originating in N. Y. State, has now been adopted in other states. In Ohio the procedure was established by a legislative amendment. In Missouri, as in N. Y. State, the Board secured a legal ruling that no legislative amendment was necessary. The Connecticut Board is now favorably considering the same action.

Society News Letter

The following have been excerpted from the November News Letter:

Schenectady County Chapter

Schenectady County Chapter has organized its meetings with a view to stimulating interest in activities and increasing attendance. The Board of Directors handles the business of the Chapter with the exception of the Annual Meeting, at which time Officers are elected and Committees report. Other scheduled meetings of the Chapter are devoted to matters of general interest and are usually headed by a speaker prominent in some particular field of interest to engineers. By following a program of this sort, it has stimulated considerable interest in its activities among the 2,000 engineers in the Schenectady area.

A Request To The Metropolitan Area Chapters

The State Convention Committees have been handicapped in the past because of lack of specific information with regard to the membership of the various Metropolitan Area Chapters. Between now and New Year's, each Metropolitan Chapter is requested to classify its membership according to company or city department affiliation and to send this classified list to Headquarters.

Erie Chapter

The following are quoted from the minutes of the recent Erie Chapter meeting, as furnished by Secretary Eldridge:

The Secretary read a letter from Chancellor Capen of the University of Buffalo which outlined the new 4 year engineering courses being inaugurated at the school. The letter also listed the members of the newly formed advisory committee to assist in the activities of the school. Mr. Karr Parker of our chapter was among those selected for the committee.

The Secretary proposed that members in service be remembered for Christmas. It was decided that each to be sent some suitable package to be forwarded by the secretary. Bill Dyer made the motion to that effect which was readily seconded.

Twenty-two attended the dinner and four more were present at the business meeting.

Kings County

The November issue of the Bulletin advises that:

In response to our request for information regarding registration blanks for those of our members who failed to receive them through the regular channels, we were advised by James O. Hoyle, in charge of registration, that the work is now being carried out through the medium of an International Business Machines Unit, where one's license number forms one of the keys of the system, hence no blank forms are available for distribution through other agencies than the State Education Dept.

Under the circumstances anyone who has not been supplied with the regular blank should immediately forward his request to James O. Hoyle, State Education Dept., Albany, N. Y.

A number of the Rosters containing the names of licensed Professional Engineers and Land Surveyors of this State are available for distribution to banks and other business establishments where the services of professional engineers may be required.

Anyone interested in procuring these rosters should contact the Secretary.

Our Chapter Record

In spite of the War and the attendant industrial dislocation our position during the past few years has shown a decided improvement. The attendance record and general tenor of our regular meetings speak for themselves; our financial position is thoroughly and basically sound; while our varied Chapter activities are gaining State wide recognition.

Maintaining such a splended record in the face of existing adversities is indeed a tribute to the various Committees and those charged with the responsibility of administering the affairs of this Chapter.

While a number of our members have availed themselves of the opportunity offered by our amended Constitution and By-Laws to regain their former status, we are eagerly looking forward to welcoming back some more of our old friends, particularly those who, because of adverse circumstances, found it impossible to maintain contact with the Society. The Secretary will be glad to furnish further details in this connection upon request.

Unsafe Building Surveys

We have been requested by the Municipal Civil Service Commission to submit a list of nominees to serve as Surveyors of Unsafe Buildings in this Borough for the year 1945.

Upon recommendation of any member as qualified for this assignment, the Chapter must certify that he

1) has expressed a willingness to serve in this capacity;

2) has had a minimum of 10 years experience in building construction;

3) has been a resident of New York City for the three years immediately preceding appointment, in compliance with the Lyons Residence Law.

Any member desiring participation in this service, whose name has not previously been submitted, should communicate with past president James J. Fouhy, or the Secretary not later than November 25, 1944.

Queens Chapter

From the November Bulletin of the Queens Chapter comes the following information:

Election Of Officers For the Year 1945

The nominating committee at the chapter meeting held on October 26, 1944, made the following nominations for the offices which become vacant on January 1, 1945. Officers to serve one year: President, William C. Kochendoerffer; First Vice President, Frank Lilien; Second Vice President, Charles B. Molineaux; Treasurer, Charles S. Stratton; Financial Secretary, Thomas J. Graham. Directors to serve two years: Walter R. Donohue; Thomas D. Eaton; Alexis J. Mortola; Arthur D. Shaw; Franklin J. Johnson.

The constitution of the chapter provides that the election of officers and directors shall take place at the December meeting. It further provides that the names selected by the nominating committee, *and in addition the names of any candidate or candidates nominated by a petition bearing the signatures of five members in good standing for the then current year,* shall be printed on a ballot and mailed to all members at least two weeks in advance of the December meeting. *Petitions nominating candidates for office must be delivered to the Executive Secretary not later than the November meeting.*

Membership Contest

A drive is in progress to increase the membership of the State Society. Queens Chapter has challenged the five Metropolitan Chapters. Please dust off that membership application card and have it signed by a prospective member. Our quota is 16.

The first prize for the State Contest is a gavel made from wood taken from the historic Manor House in Staten Island. The consolation prize is a neck-tie that must be worn at the Annual Convention.

Please work hard, propose new members and save your Chapter President this humiliation.

The American Engineer appreciates the prompt submission of the Queens Chapter. It also takes the liberty of using the Queens report on Resolutions adopted at the Elmira meeting in its own report of the said meeting. The reason? Queens has done a better job than the Editor who discarded his own summary.

Westchester

From the Westchester "Chapter News" one learns that:

The meeting of October 17th drew an attendance of over fifty, almost half of whom were guests. Many of these, engineer residents of Westchester County, indicated their interest in becoming members of the Chapter, thanks to the efforts of the membership committee.

The following engineers have been accepted for membership: Engrs. Ralph W. Cogley, Mt. Green Road, Croton-on-Hudson, New York; J. Harold Flynn, 30 Albermarle Avenue, New Rochelle, New York; Fred U. Martelon, 20 William Street, Mt. Vernon, New York.

Application for membership have also been received from:

George Rudolph Smith—25 Guion Street, Pleasantville, N. Y.

Frank O. Zuzzolo —556 E. Lincoln Ave. Mt. Vernon, N. Y.
Walter Lawrence Derby —61 Martling Avenue, Pleasantville, N. Y.

In this connection it is gratifying to note that 28 new members have joined the Chapter this year, our largest growth in several years. This makes us the fourth largest Chapter in New York State.

Last summer a questionnaire was sent to all engineers in the county for information as to their branch of engineering and society affiliations. A brief summary follows:

	Chapter Members	Non-Members	Total
Questionnaires sent out	86	401	487
Questionnaires returned	56	174	230

Classifications:—Civil 132, Mechanical 30, Electrical 46, Others 22.

Affiliations:—NYSSPE 61, ASCE 36, AIEE 24, ASME 12, Others 97

There are still many engineers in the county who should be urged to support the professional movement by joining the Chapter.

OHIO

Schedules Convention

According to the Ohio Engineer details of its 1945 Annual Meeting, which will take place as usual in the Deshler-Wallick Hotel in Columbus, are well advanced. The dates are February 15th and 16th.

President's November Letter

Probably, every engineer would like to be recognized as a member of the great Profession of Engineering.

As in other professions, the evidence of professional status is certification of competence by a qualified authority. In order to protect the public from practice of the profession by incompetent persons, the State undertakes this certification of competence. This lends authority to professional status and gives it legal recognition.

For a limited period of time, the State Board of Registration is permitted to issue Professional Engineering Certificates without examination, upon receiving evidence of satisfactory engineering education and experience. This period will end on December 31, 1945. After that all applicants must take an examination.

One of the great services which the Ohio Society of Professional Engineers can render to engineers in Ohio during the coming year is to give publicity to this requirement of the registration law The headquarters of the Society is active in providing means for acquainting as many engineers as possible with this situation. et me urge each one individually to do his part toward helping his fellow engineers, by providing them with information on the need and the method of acquiring legal Professional Engineering status in Ohio before the coming year is over.

Sincerely yours,
Tom Roplh.

Board of Trustees

The November meeting of the O.S.P.E. Board of Trustees was held at the Seneca Hotel, Columbus, Ohio. After the introduction of members and guests the minutes were approved. President Rolph then called on the treasurer for his report. We were in the red another month, this time to the tune of $103.64. The net financial balance was $6393.06.

Membership — Chairman Kerr reported an increase in October of 42 members making a total of 2352. There are still 469 members who have not paid their 1944 dues as yet said the chairman as he urged the trustees to check up on their chapter's secretary.

Professional Practices — Chairman Pettis brought two requests, sent in by the Northeast Ohio Chapter, to the attention of the Board. One request was for the establishment of higher fee schedules. The other was for the establishment of a schedule of salaries for engineers in industry. After some discussion, it was disclosed that the Cleveland Chapter is working on a salary schedule for engineers in industry.

Public Relations — Chairman Hale reported that he had sent personal letters to his committee members. The chairman recommended Publicity Chairman Wells of Central Ohio on his work. Engineer Hale then read an article from the July American Engineer on Public Relations in Missouri.

Engineers In Industry — Chairman Hubbard reported that the brochure will go to press the middle of this month.

Postwar Planning—Chairman Swineford was unable to be present but had invited Grover Clements, engineer from the Franklin County Planning Commission, and Myron Jones, a private consultant, to attend the Board meeting. Engineer Clements first told of some of the things the Architects are doing in Franklin County. Clements, who is a member of Paul Herbert's subcommittee on Postwar Problems, said that their committee decided to ask the Governor to call a special session of the legislature to set aside money to help finance the drawing up of plans. The committee is trying to get a capital reserve fund set aside, legislation to levy tax of not more than 5 mills for not more than five years and to require not more than 50% majority vote for passage. Engineers Coldren, Smull, Jones, Rolph, Teegarden and Graf, all contributed to the discussion of the "how" of postwar planning and the attitude of the Ohio Society toward legislation, government aid and private industry.

Old Business —The resolution presented last month on unionism, as rewritten, was read by President Rolph and adopted by the Board. (See elsewhere in this issue of the Ohio Engineer.)

New Business — President Rolph discussed the use of the open letter to engineers in Ohio from O.S.P.E. Twelve thousand copies have been printed and the chapters were charged with the distribution of this letter by President Rolph.

Chapter Activities

Akron—(Best chapter attendance for this month.) The minutes of Secretary Tom Sauter reveal that the October meeting was a dinner meeting, had 101 members and guests present, heard committee reports, accepted 11 new members, and then listened to an interesting talk on "Postwar Construction."

Canton —(Secretary keeps attendance record, 11 having 100% attendance in 1944.) Secretary Sperow's minutes of both the regular dinner meeting and the Board of Director dinner meeting give evidence of much activity in the chapter, especially in Postwar Planning. Tom Williams, Supt. of System Operations of the Ohio Power Company, talked at the meeting. (He was recommended for other chapters.)

Cleveland—(First chapter to consider group insurance.) The Cleveland Engineer announced their next meeting, explained the group insurance proposition, gave a report on improving the salaries of the engineers in the city, and printed a letter being sent to the industries in Cleveland urging registration.

Dayton —(The Dayton Engineer grows to three mimeo pages.) The Executive Secretary of the Ohio Hotels Association was announced as the speaker for the October meeting. Personal interest items makes the Dayton Engineer a publication of real local interest.

East Ohio—(Going again in a bag way.) The first report from Secretary Hartford since their election and rejuvenation on September 22 called a dinner meeting for October. The "Telephone at War" was announced as the subject. The attendance was 30 at that meeting reports President Roberts.

Franklin County (First regular meeting as a dinner meeting.) C. I. Weaver, President of the Ohio Fuel Gas Co., discussed "The Gas Business Integrated from Hill to Breakfast" at the well-attended meeting.

Hocking Valley (Outstanding because of a guest reporter.) Secretary Harding enclosed a clipping in his letter (18 inches of newspaper column), which was written by a reporter of the Athens Messenger who was a guest of the secretary at the dinner meeting in October. "Over the Back Fence" deserves publication says Prof. Clark (and we agree). The chapter listened to a local veteran returned from Alaska.

Mahoning Valley —(Another contact with engineers in Industry.) Secretary Stoll's minutes tell the story of a fine dinner meeting with Mr. J. C. Siegel, General Manager of the Tube Division of

the Youngstown Sheet and Tube Co., as speaker.

Marion—(Still going strong.) The minutes of Secretary Wittmer tell of another regular monthly dinner meeting with reports and two "splendid pictures." The pictures were from the Johns-Manville Corporation.

Miami—(First report to the Ohio Engineer but it is something new.) As reported by Trustee Fisher the Chapter members in the city of Hamilton meet to eat every week. Starting with 15 members and guests, who decided to eat at the same place on Tuesday noon, the group has grown to 30.

Midwestern—(Contacts all Registered Engineers.) Chairman Gruebmeyer of the membership committee sent in a copy of his letter to all registered engineers in the chapter who are not yet members. The chairman announced 100% membership of the engineers in Division 7 of the Highway Dept.

Portsmouth—(First report from Portsmouth to the Ohio Engineer.) Secretary Wickerham handed in a 6 inch newspaper clipping from the local paper. Two topics were discussed. The first was the need for an airport while the second was on combat engineering tactics.

Springfield—(Two letters go out from chapter.) Secretary Wolf's minutes say that the membership chairman read two letters, the first being sent to all registered engineers and the second being sent to management of industry. At the October meeting Mr. R. M. Green of the U. S. Electric Motor Inc., furnished the program.

Toledo—The announcement of the October meeting, sent in by Secretary Clark, urges the members to come out and meet their new officers and members.

PENNSYLVANIA

Annual Meeting

The Annual Meeting of the State Society will be held in Harrisburg either the Third or Fourth Saturday in January. The date will be determined by the Committee. The Committee is made up of the President, Executive Secretary and the Host Chapter (Harrisburg Chapter). All arrangements are in the hands of the Committee.

Pittsburgh Chapter

Board of Directors—Second Thursday of each Month.

Weekly Luncheon—Every Monday at 12:00 Noon. NOTE THIS IN "THE LITTLE DINING ROOM," 21 Oliver Avenue.

Chapter Meeting—Third Thursday of each Month.

Dinner—Roosevelt Coffee Shop—6:00 P.M.

Meeting—Roosevelt Hotel—8:00 P.M.

Building Code

The regular meeting of the Pittsburgh City Council held on October 7th was devoted to the proposed Board of Standards and Appeals which is being initiated by the Pittsburgh Builders Exchange in cooperation with engineers and architects.

Mr. Kubitz and Mr. Knabe of the Pittsburgh Chapter attended this meeting. There were a large number of general contractors, architects and other engineers present. The meeting was conducted by Mr. Duff in the absence of Mr. Kilgallen. Mr. Leonard of the City Council, Mr. Fairley, the Director of the Department of Public Safety, Mr. Boileau and Mr. Croak (P.S.P.E.) of the Building Department were in attendance. The meeting was in the nature of a forum with Mr. C. A. Landau, President of the Pittsburgh Builders Exchange conducting the questioning and introducing the members of the tentative committee. The various councilmen showed much interest in this matter, and also in the equally important one of revising portions of the building code where such revision is necessary.

Northeast Chapter

The October News just received advises that the Chapter recognizes the reappointment of its member, William H. Lesser, to the Examining Board of Registration by Governor Martin.

It also urges that Northeast Chapter be well represented at the 10th Annual Convention of N.S.P.E. to be held in New York on December 1st and 2nd.

Philadelphia Chapter

The American Engineer is indebted to Chairman Townsend of the Chapter Publicity Committee for the following:

The November meeting of the Philadelphia Chapter, P.S.P.E. was highlighted by a talk and motion picture—"Manufacture of Portland Cement" presented by Engineer E. K. Borchard.

Past President, Ray Fuller, gave a most interesting account of the dinner recently tendered our re-appointed Registration Board at Harrisburg.

Action was deferred on the Proposal to employ a "Full-time paid Secretary" for the P.S.P.E. as several active members were absent, because of a conflict with the Contractors Association Meeting.

The usual refreshment and social hour concluded another profitable and enjoyable evening at the Engineers Club.

TEXAS

Issues Fee-Salary Schedules

From the Texas Professional Engineer one learns that:

A new Fee-Salary Schedule has been sent to all Texas-Licensed Engineers.

The revised schedules of minimum engineering fees and salaries have been mailed to the 4,500 engineers licensed in Texas. The mailing expense of distributing the printed schedules was borne, proportionately to membership, by the seven Texas chapters.

There schedules were received with considerable interest. San Jacinto chapter is outlining a program in its area to obtain the application of the schedules. Other chapters plan to map similar programs soon. Success of the new schedules is wholly dependent upon the support of the individual engineer. State and local officials, private concerns, and consulting engineers must be properly informed and encouraged to recognize the schedules.

State Board Asks For Problems

The State Board of Registration for Professional Engineers holds examinations twice yearly, in March and September. The Board welcomes the help of all registered engineers in the preparation of the problems. When an engineer encounters the material for a basic problem in his field of engineering he should send it to the Board Office—the problem and the solution.

Involved or controversial problems should be avoided. In general the time allowed for working a problem may be from twenty minutes to forty-five minutes.

The following brief outline describes the general features of the various parts of the examinations, practical and geared to engineering in Texas.

There are four parts to the examination.

Part 1: The applicant is required to appear for an oral examination at a designated time and place. This is partly an interview and the average time required is about one-half hour. A passing grade of 70% must be obtained before the applicant is permitted to proceed with the next part of the examination.

Part 2: This part is the same for all applicants under Section 12 (b). It is a written examination covering mathematics and the fundamentals common to all engineers and is taken without books. Six hours are allowed. A passing grade of 70% must be obtained before the applicant is admitted to the next part of the examination.

Part 3: This part of the examination covers the designated branch of engineering from the following: Aeronautical, agricultural, ceramic, chemical, civil, electrical, geological, mechanical, mining and metallurgical, petroleum and natural gas, structural, and textile. Eight hours are allowed and the use of books, reference material, etc., is permitted for this professional part of the examination. A passing grade of 70% is required.

Part 4: Following parts 1 to 3 a typewritten engineering report is required, dealing with some engineering project on which the applicant has had a responsible part. The subject selected must be approved by the Board before it is prepared. Duplicate copies are required.

Texas Tech Requests

Advice on Engineering Curricula

How can engineering colleges better equip their students so

they may take their places in the postwar industrial development of Texas?

As part of a study by Texas Technological College looking toward formation of a long-range college plan "by which it may better fit its activities to the needs of the postwar era," O. V. Adams, head of engineering asked for the views of the State Highway Department officials on the following topics:

"1. Any deficiencies which our graduates as a whole have shown which could be remedied by a change in our curricula.

"2. The demand for postwar employment of persons as we have been graduating them, or as possibly revised under No. 1 above.

"3. The demand for persons of types we have not been providing and, if so, in what fields and with what training.

"4. The demand for persons in all fields of engineering with Masters' degrees.

"5. The set-up under which Texas Technological college might engage in cooperative research with our department and the possible extent of such cooperation."

State Highway Engineer D. C. Greer had Dean Adams' letter circulated to all district engineers and division heads of the state department. As result, in Dist. 18 at Dallas, District Engineer T. E. Huffman, called a meeting of his engineers for discussion of the subjects suggested in Dean Adams' letter. Then O. R. Mc Elya, himself a Texas Tech graduate, prepared a memorandum expressing the consensus of the meeting.

Text of the memorandum follows:

"Referring to topic number one regarding graduates of the college as employed by the Texas Highway Department. In most cases the Texas Tech graduates have a good technical background. That is fine for the department and the young engineer himself when he begins work for the department but he is not so well prepared to advance due to it being necessary to know how to write letters. reports, prepare plans and specifications, and contact the public.

"As an engineer advances in his profession in the Texas Highway Department his work calls for more administrative skill. Detail technical work is usually delegated to others who work under his direction. In addition to a well-grounded background, he will find the following subjects increasingly important as he advances in the department.

1. English (technical and general writing)
2. Organization and administration
3. Public Relation
4. Salesmanship
5. Accounting

"A technician rarely expresses himself well. More English subjects are needed to prepare the engineer for writing letters, reports, and preparing specifications.

"A technician usually works alone. In the Highway Department the Resident engineers and District engineers have several men under their supervision. They need to be able to organize and supervise for plans organizations and inspection for construction. The engineer is assumed to have been trained to lead but in many ways he has chosen to follow.

"In the matter of public relations, the District engineers and Resident engineers have to meet with various city and county organizations about routes, right of way, drainage, and miscellaneous complaint. Courses in public relations would benefit the engineer in preparing him to deal with the public on a practical and amicable basis.

"Salesmanship is very desirable and necessary to the young engineer as well as the older ones. He not only needs to sell himself to his employer but after that he needs to sell the public on his work. A foundation in school would be more desirable than having to learn after graduation.

"Courses in accounting are needed by the engineers who are employed by the Highway Department as well as those employed by industry because payrolls and estimates are handled by the engineers in cooperation with the accounting department."

To these suggestions might well be added the need for public speaking ability as well as a knowledge of federal, state, county and city organizations.

Notice

This is to call attention to the fact that since the opening of the state headquarters of the Texas Society of Professional Engineers, Inc., the society has discontinued use of its former post office box. Communications to TSPE headquarters should now be addressed to 504 Ewell Nalle Building, Austin 22, Texas.

TEXAS
State Board of Registration
For Professional Engineers

Board Office, 511 Ewell Nalle Building
Telephone 2-9942
Austin, Texas

E. W. Pittman, Beaumont ..... Chairman
Datus E. Proper, San Antonio ..... Vice-Chairman
J. S. Hudnall, Tyler ..... Member
A. F. Mitchell, Corsicana ..... Member
J. B. Thomas, Fort Worth ..... Member
Carl L. Svenson, Lubbock ..... Member-Secretary

Business Address of the Secretary is the
Board Office in Austin

WISCONSIN

Issues Bulletin

The October issue of the Wisconsin Professional Engineer, recently received, is a most creditable publication of eight pages. Prepared by the Publications Committee consisting of Walter A. Peirce, Chairman, Racine; William H. Cramer, Nennah; Lewis M. Hammond, Milwaukee; Grover Keeth, Rothschild; Walter R. Mueller, Milwaukee; James W. Myers, Jr., Kenosha; Delmar W. Nelson, Madison; Elwyn F. Nelson, Oshkosh; Harry E. Pulver, Madison, it is edited by O. J. Muegge, Secretary of the Wisconsin Society. Following are items quoted verabtim.

Secretary's Sanctum

In July, hopes were high, that with a good try this number would be out in the scheduled month. No go, too hard a row to hoe.

Similar optimism now prevails for Number 4, which is due in December. With your help it will be out on time. Right now —not tomorrow—send in that news item or article, or tell us where we can get it.

Hmmmm, this reads like an edict of a hard-boiled city editor, and this is the corner reserved for the Secretary. Well, may there be an over-burdened mailman.

Still, upon further reflection, there is no reason to believe that more than a few members read this corner. We will admit that such is the case if fewer than 500 responses are delivered to the door. No tomatoes, please.

Nominating Committee and Nominees

The Nominating Committee for 1945 officers was selected by the Board of Direction at the September 23 meeting. The names of the members and their employment classification are as follows: Public Employment: John H. Barth, LaCrosse; Carl A. Cajanus, Wisconsin Rapids. Educators: D. W. Nelson, Madison; Clayton R. Francke, Milwaukee. Private Practice: William T. Gohn, Eau Claire; H. V. Tennant, Portage. Industrial or Private Utility Employment: H. A. Frommelt, Milwaukee; John S. Wells, Appleton.

Professor Nelson was named as Chairman of the Board.

The Committee met on October 14 in Milwaukee and made the following nominations: *For President*: William J. Urban, Milwaukee, First Vice-President; Charles S. Whitney, Milwaukee, Chairman, Legislation Committee. *For First Vice-President*: Berry E. Brevik, Appleton, Chairman, Membership Committee; E. W. Seeger, Second Vice-President. *For Second Vice-President*: Archie E. Becher, Wassau, Member Ethics & Practice Committee; Ernest

Szekely, Milwaukee, Director. *For Secretary*: O. J. Muegge, Madison, Incumbent. *For Treasurer*: L. M. Schindler, Appleton, Incumbent. *For Directors* 1945-46 (*Two to be elected*): Charles J. Campbell, Neenah, Mem., Employment Committee; Russell W. Fowler, Madison, Member, Educational Committee; E. J. Kallevang, Madison, Member, Legislation Committee; George Martin, Green Bay, Member, Legislation Committee. *For National Representative*: Lawrence E. Peterson, Milwaukee, Incumbent. *For Alternate National Representative*: Ben G. Elliott, Madison, Incumbent.

Other nominations may be made by petition of 25 members filed with the Secretary at least 60 days before the Annual Meeting.

In accordance with Constitutional requirements, ballots will be distributed at least 30 and not more than 45 days before the Annual Meeting. Ballots will be forwarded only to members in good standing.

The elected officers will assume their duties at the close of the annual meeting.

Second Annual Meeting

At the Board meeting on September 23 the Second Annual Meeting was scheduled for January 12 and 13, 1945, such dates causing least conflict with known scheduled conventions of the national engineering societies.

The Program Committee is actively engaged in the development of an interesting program for this meeting. The work of the Committee can be materially lightened if every member of the Society would send suggestions as to possible subjects and speakers to the Committee. Communications should be addressed to Mr. Richard R. Ranson, Chairman, 4951 N. Newhall Street, Milwaukee 11, Wisconsin.

Remember the date and plan to attend.

— EVERY MEMBER GET A MEMBER —

Registration Board Appointees

Mr. Grover Keeth, Rothschild, and Mr. Edgar H. Berners, Green Bay, have been appointed to succeed themselves as engineer and architect members, respectively, of the Wisconsin Registration Board of Architects and Professional Engineers for the three-year term ending September 15, 1945. Mr. O. T. Nelson advises that these reappointments were made by the Industrial Commission on September 6, 1944. Our congratulations to Messrs. Keeth and Berners.

Report Of Committee On Public Relations

This report is a resume of miscellaneous activities following the outline of duties, given as sub-titles, established for the Committee by the Board of Direction. The membership of the Society is requested to communicate with the Chairman wherever suggestions can be made to assist the Committee. Study the duties outlined and let the Committee have the benefit of your ideas. Public Relations can do substantial work with the support and active interest of the membership.

1. *Study and report on public questions in the State involving engineering and cooperate actively with all interested organizations.*

a. During September attended meetings of the "Technical Committee for the Five Taxing Units operated in the Milwaukee Area on Survey of Positions in the Government" as spokesman for the Board of Direction. Board action supported the principles in the report of the special committee of A.S.C.E. covering Engineering Positions and Classifications in Milwaukee area governments. This report recommends 8 Professional Classes and 4 Technical Classes. A salary schedule is included. The Technical Committee reports to a Policy Committee. which will make final recommendations. A communication, endorsing the report, was sent to the latter Committee.

b. The Committee, after careful consideration, recommends that engineers serving on public technical committees limit their activities to advising on the procedure to be followed in finding a solution to the problem of the committee.

c. Communicated on mattter of procedure for receiving applications for Assistant City Engineer and Planner for City of Racine. Referred to Ethics and Practice Committee.

d. Communicated with Executive Secretary of N.S.P.E. on employment of Professional Engineers in Federal Services; State Registration recommended as necessary qualification.

2. *Watch advertising, newspapers, radio programs, public speeches, etc.*

a. Reported on Federal Bill involving Engineering Services on Public Projects Bill HR-3328 and S-1531. Referred to Legislation Committee.

3. *Applaud such public communications in writing when engineering is placed in favorable light and present arguments when reverse is true.*

a. Reported on newspaper articles "Racketeers Dealing in Labor Involving Engineering Service" in the Detroit area.

b. Reported on practice of local firm not legitimately doing engineering work but using the title "Engineering." This title subsequently eliminated from firm name.

4. *Arrange for public appearance of engineers whenever appropriate* (*No action*).

5. *Initiate publicity favorable to engineers whenever opportunity offers, including notice of election to membership.*

a. Publicity released to Western Builder, McGraw Hill Co., Milwaukee Journal, Milwaukee Sentinel, and to many local state papers.

6. *Cooperate whenever possible with groups having to do with post-war planning.*

a. Attended Wisconsin Forum on Post-War Planning at Schroeder Hotel.

b. Received communication from Committee for Economic Development on lines of cooperation through Planning Department of Milwaukee Association of Commerce. Met with Manager of Post-War Planning Division of Milwaukee Association of Commerce.

7 .*Keep the Board and the Committee on Ethics and Practice informed on developments in unionization as it affects the professional engineer.*

a. Communicated with Dean C. J. Freund of University of Detroit.

Communciated with members of Committee and Board of Direction, calling attention to A.S.C.E. proposed amendment to Constitution to establish Committee on Employment Relations.

At April meeting of Wisconsin Section of A.S.C.E. urged deferment of action on amendment and of establishment of a bargaining Committee.

W. J. Urban — Chairman

— EVERY MEMBER GET A MEMBER —

Chapter News

The development of the model Constitution and By-Laws for Chapters have been completed, and copies of these articles have been sent to all members of the Society located in the Fox River Valley area. These articles will be reviewed at a meeting to be called in the near future by Mr. Francis J. Steeno, Temporary Chairman of the Chapter. It is expected that the organization of the Fox River Valley will be completed at this meeting.

Lists New Registrants

The American Engineer is indebted to Josephine V. Hughes, Acting Secretary of the Wisconsin Board of Architects and Professional Engineers for the following list of new registrants:

L. S. Anda, Chicago, Ill.
E. P. Berghammer, Milwaukee, Wis.
Paul W. Bishop, Menasha, Wis.
Donald Boehmer, Milwaukee, Wis.
Irving E. Brooke, Chicago, Ill.
Russell C. Bumbalek Milwaukee, Wis
G. Francis Egan, Milwaukee, Wis.
J. R. Egan, Baraboo, Wis.
W. W. Horner, St. Louis, Mo.
Harry K. Ihrig, Milwaukee, Wis
Harry T. Immerman, New York, N. Y.
Thomas A. Jordan, Chicago, Ill.
Ernest R. Koppel, Milwaukee, Wis.
Edward H. Kuenzi, Madison, Wis.
George H. Boyer, Palmyra, Wis.
Arthur A. Lemke, Chicago, Ill.
Frank T. McKee, Madison, Wis.
John M. Newman, Milwaukee, Wis.
Kenneth F. Ode, Elm Grove, Wis.
Ferris L. Osborn, Marshfield, Wis.
Wilmer A. Piper, Madison, Wis.
Robert C. Reiley, Milwaukee, Wis.
John H. Waite, Waukesha, Wis.
Martin B. Wendt, Oconomowoc, Wis
Ralph Wiken, Milwaukee, Wis.

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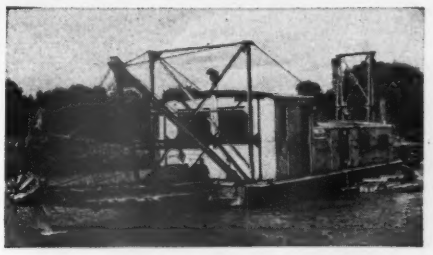
We solicit inquiries now for post-war delivery. Write for complete catalog, photo and data sheets.



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The Future Of N.C.S.B.E.E.

(*continued from page* 8)

sibility of a legalized profession.

The value of engineering to mankind seems to be realized but confusion still reigns in the public mind as to the functions of the professional engineer. This is true not alone in the minds of the public at large, but also in the minds of many technically trained men and engineering workers. It is difficult to separate the materials, machines, apparatus, and physical structures from the "powers of the mind" of the professional engineer, who conceives the entire project—The mind which applies the materials and forces of nature to the use and convenience of mankind.

The future would seem to call for the engineering education of the public as well as for the future engineer. The engineering education of the public will differ because it is for a different purpose.

We can review the shortcomings of the past and from them learn for the future. We can be justly proud of the achievements and the progress which have been made, and of the value of engineering registration to society. But all of this is in the past. Today looks to the future and to the ways and means of providing for the proper functioning of a National Council in keeping with its importance in the services which it can render to the Member Boards, and through them to professional engineering and to the public.

Recognition of the profession of engineering will be what it is made by the examples of individual practice, dissemination of knowledge of the Act to the public, and the respect which is brought about by the strength and representative character of the profession as members of society at large.

What then is the place of the National Council of the future? Will it be a clearing house of information and a unifying service to bring about a complete understanding of the common problems of all the Member Boards? Will it assist in the correlation of the many elements of professional engineering—the elements of education, experience, ethics, and human relations? Will it exert an influence that will bring closer that future time when the professional status of engineering will be on a par with the legal and medical professions?

What will be the value of the National Council to professional engineering of the future? Will it be representative of the Member Boards and through them unite the seventy-five thousand registered engineers into a forward looking, standard raising, professionally minded body, each part contributing to the advancement of the whole?

With humble pride in the National Council of the past we look with hope and confidence to a greater National Council in the future which will aid the engineers of our country to attain that unity of effort, that common understanding, that responsibility to society, and that public recognition, which taken together will make engineering a real and truly great profession.

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WHAT'S NEW

And Coming In The Whirl Of Change

(News from industry — gathered by the publisher)

NEW SELF LOCKING NUT

BABYLON, N. Y. — A recently developed radically new Self-Locking Nut will soon be available to war industry, engineers and designers working on post-war projects, according to William Dzus, President of the Dzus Fastener Co., Inc., Babylon, N. Y. Mr. Dzus, who also is the inventor of the famous Dzus Spiral-Slot Cowl Fastener, widely used on airplanes, stated that he perfected the Self-Locking Nut after years of development and exhaustive experiments and tests. He described it as the type for which industry has been waiting since the principle of threads in bolts was first used.

The Self-Locking Nut, he explains, eliminates all of the current difficulties in precision fastening as well as the need for accessories now used to keep the nut in place. No cotter pins or wiring are necessary, for example. In their place the nut itself has a feature which enables it to hold at any desired point.

This Self-Locking Nut is all metal, thus eliminating plastic or rubber insertions. It does not jam the threads to fasten, and has full and undisturbed threads throughout the entire length of the nut. Tests proved that the new nut is stronger and that it will withstand higher heat temperatures, oil, or any other disturbing element that might affect proper functioning. It will maintain its locking features, Mr. Dzus claims, regardless of the number of times it is screwed on and off, and the self-locking principle will not injure the thread of either the bolt or the nut. This feature is found in no other nut.

The inventor termed this new invention the acme of simplicity plus strength, endurance, and safety, and stressed that in the very near future Self-Locking Nuts will be available in standard sizes to war industries and engineers and designers working on post-war problems.

NEED FOR BETTER DIESEL ENGINE EDUCATION

Manufacturers of Diesel engines, meeting in Chicago with 23 deans and professors from some of the nation's top-flight engineering schools, heard them describe their pressing need of better facilities for turning out competent Diesel engine operators — and pledged them their support.

The occasion was the luncheon get-together of the educational committee of the Diesel Engine Manufacturers Association, with the engineering instructors, at LaSalle Hotel. It was estimated that the latter, some of whom had travelled 1,000 miles to be present, represented one-third of all the nation's engineering students.

Gordon Lefebvre, president of Cooper-Bessemer Corp. and chairman of DEMA's committee, listened to pleas for modern, smaller type engines, of from 100 horsepower down, for students to dismantle and study. Mr. Lefebvre told the educators that DEMA already had done considerable preliminary work toward procuring these engines for them, from government wartime surpluses.

Need for improved Diesel text books was stressed by Prof. Paul E. Mohn of University of Illinois, who characterized many existent texts as "very inadequate and frequently er-

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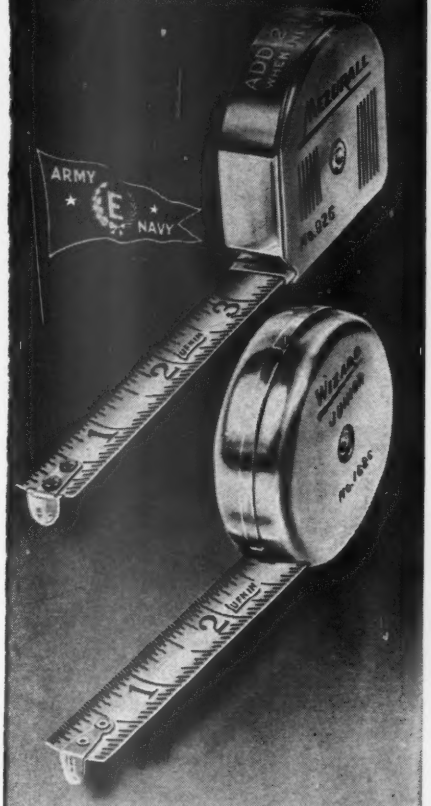

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roneous". Other educators, including Prof. Carl Wischmeyer of Rose Polytechnic Institute and Prof. Chas. W. Good of University of Michigan, agreed that better texts were needed.

Mutual benefit to school and manufacturer from students and even professors spending considerable of their time working in Diesel engine factories was another topic the educators discussed. Others were the amount of Diesel specialization their mechanical engineering courses should include, facilities for doing research work, desirability of manufacturers establishing fellowships, and the nature of post-graduate work.

Prof. Robert B. Rice, whose work in Diesel engine instruction at North Carolina State College is outstanding, has been engaged by DEMA as educational consultant. Addressing the instructors present as "the backbone of engineering in the United States," he said it was "astounding how few engineering schools, essaying to give Diesel engineering instruction, had adequate equipment. This was revealed in the association's survey, made last summer."

In passing the Surplus Property Act of 1944, Prof. Rice added, Congress felt it was actually "giving nothing away—the benefits to be derived by the states will be adequate payment for whatever monetary loss may be sustained in the dispositions of the surplus property board."

VISUAL TRAINING IN INDUSTRY

Reviewed
By
LYNE S. METCALFE

With a construction budget running into the billions for the Nation after the war, building industries will find it necessary to solve the problem of skilled labor supply. Much retraining and training of returned artisans and of personnel entirely new to the field will be necessary, and this will be particularly true in woodworking.

"Instructional Program Of Safe Practices In Woodworking," is the general title of a series of twenty-two discussional type slidefilms now available to the construction field, and to trade schools of the country.

The distribution of this teaching series has been undertaken by The Jim Handy Organization, Detroit. Of the twenty-two subjects, fourteen deal with the proper use of woodworking machinery and tools while eight cover basic safety. There is a total of 1,128 individual pictures in the series — special photographs, drawings, charts, diagrams and other visual material, with legends, lettering and labels superimposed on the film to amplify the pictures meaning.

This type of training film, widely used in the armed services and in wartime industries, is a strip of 35 mm. safety motion picture film on each segment or "frame" of which is a picture — all arranged in logical order to provide procedure patterns for the learner. Each film in fact in this series consists of several lessons — all ready to teach. Each concludes with a review of material shown, and a set of pointed test questions bearing upon it to aid the foreman or instructor. In other words, these films are both lesson and lesson-plan.

(Continued on next page)

COMMERCIAL PRODUCTION OF SILICONE FLUIDS ANNOUNCED BY DOW CORNING CORPORATION

Liquid silicones are in quantity production, it was announced recently by Dow Corning Corporation of Midland, Michigan. These new organo-silicon products have been available for many months under the name of Dow Corning Fluids but their use has been restricted to a few applications essential to the war effort. Recent expansion in production capacity now permits them to be offered for adaptation to any war use indicated by their unusual combination of properties.

Dow Corning Fluids are water white and are characterized by an extremely low rate of viscosity change with temperature, compared to petroleum oils of equivalent viscosity. They also have higher flash and fire points and a complete freedom from solvent or swelling effect on synthetic or natural rubber and on many kinds of plastics. They are not affected by oxygen under pressure at ordinary ranges of temperature. Since they are resistant to oxidizing solutions, mineral acids, salts and alkalies, they have proved to be highly useful as an impregnant for asbestos packing and gaskets in chemical pumps.

Two series of Fluids are available, depending upon the temperature and viscosity range to be covered. Dow Corning Type 200 Fluids are useful down to —40°C. or up to 200°C. and include medium through very high viscosity liquid silicones. They are non-volatile and possess flash points in excess of 600°F. They are not miscible with alcohol glycol, glycerin or lubricating oil but will blend readily with most of the common organic solvents including light naphthas.

For extremely low temperature uses, Dow Corning Type 500 Fluids include liquids ranging in viscosity from that of water to medium viscosity fluids. They are all useful at temperatures down to —70°C. and below. The very low viscosity fluids are distillable and have appreciable vapor pressures at room temperature but higher viscosity fluids in this series are non-volatile and useful up to 200°C.

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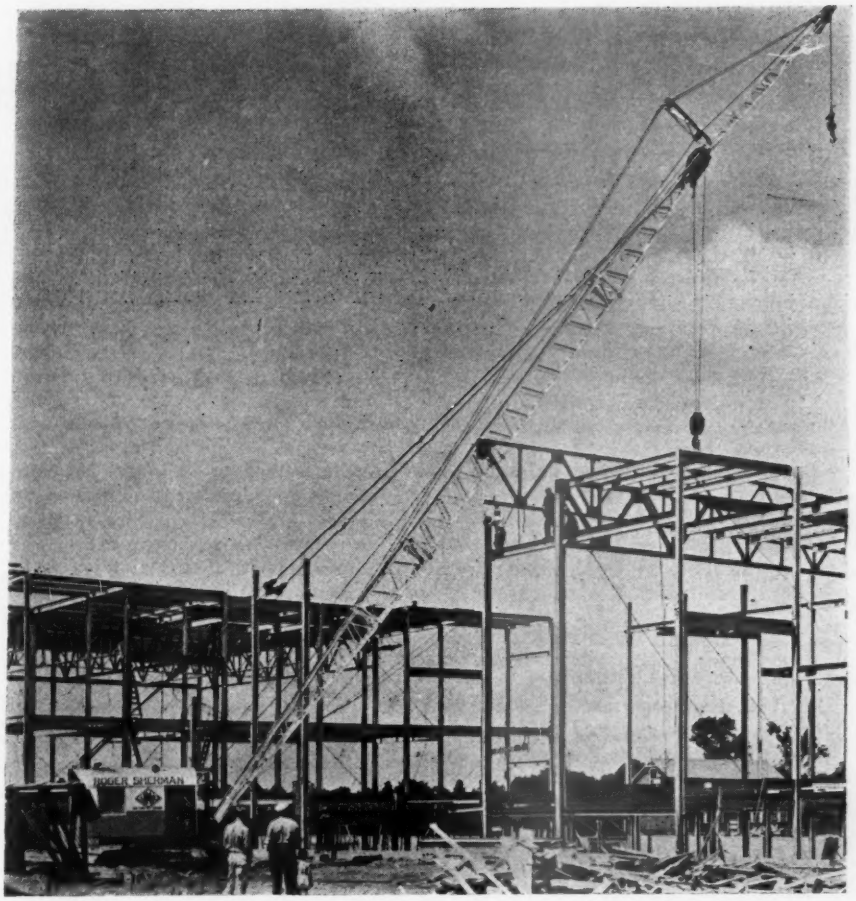

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FROM THE PRODUCTS OF TOMORROW EXPOSITION

Chicago's spacious Coliseum will be the scene next Spring of the Products of Tomorrow Exposition and already there is a scramble on for space from scores of manufacturers who have their peacetime production ready for presentation:

From surveys of American business and from requests for space in the exposition three things are noticeable:

1—Television and allied fields of electronics will present a varied array of peacetime adaptations of wartime discoveries.

2—Plastics and the field of synthetics rank high in the industries readying new ideas for civilian trade.

3—Most manufacturers have their products ready for presentation and await only the word to go ahead from government agencies.

In scores of fields manufacturers have found peacetime uses for ideas which were originally thought useful only for war.

An Important Message to

Technical Men

The war has carried the engineering age to a new peak! Production demands have created technical problems the like of which the world has never seen before! The services of engineers are at a premium. Especially the services of one particular class—executive engineers—*engineers with business training;* engineers who can "run the show."

In these critical times, the nation needs engineers of executive ability *now, today* —not five, or ten years from now! The shortage of such men is acute—even more acute than that of skilled production workers. And company heads, aware of this situation, are offering high rewards to engineers who have the necessary training in industrial management.

Golden Opportunity for Engineers

In this new era, the engineer with vision and foresight has a golden opportunity. He will realize that out of today's tremendous production battles will emerge technical men who not only will play a major role in winning the war, but who also will be firmly entrenched in key executive positions when peace comes.

However, before the engineer can take over executive responsibilities, he must acquire knowledge of the other divisions of business—of marketing, accounting and finance. He has of necessity a vast amount of technical training and experience. But in order to grasp the opportunities that present themselves today—to assume leadership on the production front—he must *also* have an understanding of practical business principles and methods.

The Alexander Hamilton Institute's intensive executive training can give you this essential business training to supplement your technical skill. It is a time-saving program that fits into the most crowded schedule. It is not intended for men who expect to remain just engineers for the rest of their lives. It is for those willing to train for the position that now seems just a little beyond them—the position which will increase their incomes today and make their security more certain when the war has ended.

134,000 men on the operating side of business have enrolled for this training. More than 37,500 are technical men—engineers, chemists, metallurgists—many of whom are today heads of our huge war industries.

This training appeals to engineers because it gives them access to the thinking and experience of the country's great business minds. It is especially valuable to such men because it is basic, not specialized—broad in scope, providing a thorough groundwork in the fundamentals underlying *all* business. It covers the principles that every top executive must understand. It applies to all types of industrial organizations, because all types of organizations are based on these same fundamentals.

Business and Industrial Leaders Contribute

The Institute's training plan has the endorsement of leading industrialists and business men. And it is only because these high-ranking executives recognize its value and give their cooperation that such a plan is possible. Among those who contribute to the Course are such men as Frederick W. Pickard, Vice President and Director, E. I. DuPont de Nemours & Co.; Thomas J. Watson, President, International Business Machines Corp.; James D. Mooney, President, General Motors Overseas Corp.; Clifton Slusser, Vice President, Goodyear Tire and Rubber Co. and Colby M. Chester, Chairman of the Board, General Foods Corp.

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The facts about the Institute's plan and what it can do for you are printed in the 64-page book, "Forging Ahead in Business". This book in its own right is well worth your reading. It might almost be called a handbook of business training. It is a book you will be glad to have in your library, and it will be sent to you without cost. Simply fill in and mail the attached coupon *today*.

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Marcus W. Hinson, chairman of the exposition planning committee, has been directing a survey of American and Mexican business interests to determine when the bulk of the industries would have their products ready for unveiling. He said:

"Our preliminary reports indicate most of the manufacturers are ready with their civilian lines and wait only on government permission to begin large-scale production.

"We asked the manufacturers if items would be ready for exhibition by next Spring and by what date the products, still in the laboratory stages, would be ready. The response was marvelous.

"Generally the firms replied to the survey and asked for reservations so they might present their items to the public to test their acceptance."

Hinson pointed out that some plants wholly engaged in war production might, without warning, have their orders cut back or cancelled. He continued:

"Those plants in a position to convert speedily will be able to hold their employees and hold down unemployment.

"Firms knowing the public acceptance of their products will be in a favored position to swing into civilian production when the time comes."

One of the industries showing particular interest in the exposition is the deep freeze industry.

Other branches of the huge food industry have also shown interest in the exposition. In addition to the deep freeze branch, firms representing dehydrated and the frozen packaged foods are expected to participate in the exposition.

In the field of plastics, advance inquiries indicate, will be shown the development of that science in the manufacture of hundreds of items now constructed of other material.

In the field of home appliances the items up for consideration are seemingly endless and range from the "Kitchen of Tomorrow" to other advanced ideas for gracious living.

Potential uses of glass in home construction and interior decoration opens up another vista in which a number of firms are interested.

IN BUSINESS, TOO, LOST MINUTES CAN LOSE BATTLES!

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LOS ANGELES ENGINEER INVENTS NEW TERMITE AND DRY ROT BARRIER

A new unit-system building frame, described as the only economically feasible method now in existence for the prevention of serious damage to property by dry rot fungi and termites, has been patented by John W. Gunn, civil engineer and president of the Hollywood Termite Control Co., Inc., Los Angeles.

The patent was developed in an effort to combat the annual $300,000,000 property loss.

Through a principle of blockade similar to that used in fire-control building design, and through strategic placement of treated lumber, the Termitrol Patent, as the invention is known, isolates and confines infestations to relatively small areas. Thus replacement of cellulose-deprived lumber becomes correspondingly inexpensive.

Because it will enhance property values and safeguard investments, the patent has been received with great enthusiasm by the FHA and leading private home loan agencies in the Los Angeles area, Gunn states. It is estimated that the use of the patent will add only an approximate 2% to initial building costs, yet offer the home builder a saving of from 15% to 20% on later repair bills due to damage caused by termites and dry rot.

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